

NAME: OPUIYO .N. GOLDEN.

COURSE: ENG 381.

MATRIC: 16/ENG07/023.

DEPT: PETROLEUM ENGINEERING.

ASSIGNMENT 1

The dynamic model of a body in motion performing damped forced vibrations is as in equation (1)

$$\frac{d^2x}{dt^2} + 5\frac{dx}{dt} + 6x = \cos t$$

Given that when $t = 0$, $x = 0.1$ and $\frac{dx}{dt} = 0$,

- (i) Using the Auxilliary Equation Method obtain the solution of the model in form of an expression having x as a function of t
- (ii) Write a MATLAB program to plot the relationship between x and t for $0 \leq t \leq 15$ unit using a step size of 0.01 unit, and
- (iii) Write the steady-state solution of the system in form of $x = K \sin(t + a)$.

Solution

$$\frac{d^2x}{dt^2} + 5\frac{dx}{dt} + 6x = \cos t \quad (i)$$

$$\begin{aligned} x = C.F &= m^2 + 5m + 6 = 0 \\ &= (m + 2)(m + 3) = 0 \\ &= m_1 = -2, \quad m_2 = -3 \\ x &= Ae^{-2x} + Be^{-3x} \end{aligned}$$

$$P.I = F(t) = \cos t; \quad x = C\cos t + D\sin t$$

$$\frac{dx}{dt} = -C\sin t + D\cos t$$

$$\frac{d^2x}{dt^2} = -A\cos t - B\sin t$$

Substituting the equations of $P.I(x, \frac{dx}{dt}, \frac{d^2x}{dt^2})$ into equation (i)

$$= -C\cos t - D\sin t - 5C\sin t + 5D\cos t + 6C\cos t + 6D\sin t = \cos t$$

$$= 5C\cos t + 5D\cos t + 5D\sin t - 5A\sin t = \cos t$$

$$= \cos t(5C + 5D) - \sin t(5C - 5D) = \cos t$$

Equating both sides $\therefore \cos t(5C + 5D) = \cos t$

Dividing both sides by $\cos t \quad = 5C + 5D = 1$

Equating both sides $\therefore -\sin t(5C - 5D) = 0$

Dividing both sides by $-\sin t \quad = 5C - 5D = 0$

Solving equations (ii) and (iii) to get the values of C and B;

$$5C + 5B = 1 \quad (ii)$$

$$5C - 5B = 0 \quad (iii)$$

Taking equation (ii)

$$= 5C + 5B = 1$$

$$= 5C = 1 - 5D$$

$$= C = \frac{1-5D}{5} \quad (iv)$$

Substituting the value of C in Equation (iv) into Equation (iii)

$$= 5\left(\frac{1-5D}{5}\right) - 5D = 0$$

$$= 1 - 5D - 5D = 0$$

$$= 1 - 10D = 0$$

$$= D = \frac{1}{10}$$

Substituting D Into equation (ii)

$$= 5C + 5\left(\frac{1}{10}\right) = 1$$

$$= 5C + \left(\frac{1}{2}\right) = 1$$

$$= 5C = 1 - \frac{1}{2}$$

$$= 5C = \frac{1}{2}$$

$$= C = \frac{1}{10}$$

Hence, The General solution = Complementary function + Particular Integral

$$G.S = C.F + P.I$$

$$G.S = x = Ae^{-2x} + Be^{-3x} + C\cos t + D\sin t$$

Substituting C and D into the General Solution;

$$G.S = x = Ae^{-2x} + Be^{-3x} + \left(\frac{1}{10}\right)\cos t + \left(\frac{1}{10}\right)\sin t$$

$$G.S = x = Ae^{-2x} + Be^{-3x} + \frac{\cos t}{10} + \frac{\sin t}{10}$$

Hence finding the value of the constants A & B Also Known as the particular solution;

Substituting t=0 , x=0.1 in G.S

$$\text{When } t = 0, x = 0.1$$

$$0.1 = Ae^{-2(0)} + Be^{-3(0)} + \frac{\cos(0)}{10} + \frac{\sin(0)}{10}$$

$$0.1 = A + B + \frac{1}{10} + 0$$

$$A + B = 0.1 - \frac{1}{10}$$

$$A + B = 0 \quad (v)$$

$$\text{Also, When } t = 0, \frac{dx}{dt} = 0$$

$$\text{Where } \frac{dx}{dt} = -2Ae^{-2t} - 3Be^{-3t} - \frac{\sin t}{10} + \frac{\cos t}{10}$$

$$\text{For } t = 0, \frac{dx}{dt} = 0$$

$$= -2Ae^{-2(0)} - 3Be^{-3(0)} - \frac{\sin(0)}{10} + \frac{\cos(0)}{10}$$

$$= -2A - 3B - 0 + \frac{1}{10}$$

$$= 2A + 3B = \frac{1}{10} \quad (vi)$$

Solving Equation (v) and (vi) simultaneously to find A and B

$$\begin{aligned}\text{From eqn (vi)} \quad 2A &= \left(\frac{1}{10} - 3B\right)x \frac{1}{2} \\ &= A = \frac{1}{20} - \frac{3}{2}B\end{aligned}$$

Substituting the value of A into eqn (v)

$$\begin{aligned}&= \frac{1}{20} - \frac{3}{2}B + B = 0 \\ &= \frac{1}{20} - \frac{1}{2}B = 0 \\ &= \frac{1}{20} = \frac{1}{2}B \\ &= B = \frac{1}{10}\end{aligned}$$

Substituting B into eqn (v) $= A + \frac{1}{10} = 0$

$$= A = -\frac{1}{10}$$

Hence, the particular solution is $P.S = \frac{-e^{-2x}}{10} + \frac{-e^{-3x}}{10} + \frac{\cos t}{10} + \frac{\sin t}{10}$

```
(Q2) commandwindow

clear

clc

close all
syms t
x=-(exp(-2*t))/10+(exp(-3*t))/10+(cos(t))/10+(sin(t))/10
tn=[0:0.01:15]
xn=subs(x,tn)
figure(1)
plot(tn,xn)
axis tight
grid on
grid minor
xlabel('Time')
ylabel('motion of the body')
```

x =

$$\exp(-3*t)/10 - \exp(-2*t)/10 + \cos(t)/10 + \sin(t)/10$$

tn =

Columns 1 through 7

0	0.0100	0.0200	0.0300	0.0400	0.0500	0.0600
---	--------	--------	--------	--------	--------	--------

Columns 8 through 14

0.0700	0.0800	0.0900	0.1000	0.1100	0.1200	0.1300
--------	--------	--------	--------	--------	--------	--------

Columns 15 through 21

0.1400	0.1500	0.1600	0.1700	0.1800	0.1900	0.2000
--------	--------	--------	--------	--------	--------	--------

Columns 22 through 28

0.2100	0.2200	0.2300	0.2400	0.2500	0.2600	0.2700
--------	--------	--------	--------	--------	--------	--------

Columns 29 through 35

0.2800	0.2900	0.3000	0.3100	0.3200	0.3300	0.3400
--------	--------	--------	--------	--------	--------	--------

Columns 36 through 42

0.3500	0.3600	0.3700	0.3800	0.3900	0.4000	0.4100
--------	--------	--------	--------	--------	--------	--------

Columns 43 through 49

0.4200	0.4300	0.4400	0.4500	0.4600	0.4700	0.4800
--------	--------	--------	--------	--------	--------	--------

Columns 50 through 56

0.4900	0.5000	0.5100	0.5200	0.5300	0.5400	0.5500
--------	--------	--------	--------	--------	--------	--------

Columns 57 through 63

0.5600	0.5700	0.5800	0.5900	0.6000	0.6100	0.6200
--------	--------	--------	--------	--------	--------	--------

Columns 64 through 70

0.6300	0.6400	0.6500	0.6600	0.6700	0.6800	0.6900
--------	--------	--------	--------	--------	--------	--------

Columns 71 through 77

0.7000	0.7100	0.7200	0.7300	0.7400	0.7500	0.7600
--------	--------	--------	--------	--------	--------	--------

Columns 78 through 84

0.7700	0.7800	0.7900	0.8000	0.8100	0.8200	0.8300
--------	--------	--------	--------	--------	--------	--------

Columns 85 through 91

0.8400	0.8500	0.8600	0.8700	0.8800	0.8900	0.9000
--------	--------	--------	--------	--------	--------	--------

Columns 92 through 98

0.9100	0.9200	0.9300	0.9400	0.9500	0.9600	0.9700
--------	--------	--------	--------	--------	--------	--------

Columns 99 through 105

0.9800	0.9900	1.0000	1.0100	1.0200	1.0300	1.0400
--------	--------	--------	--------	--------	--------	--------

Columns 106 through 112

1.0500	1.0600	1.0700	1.0800	1.0900	1.1000	1.1100
--------	--------	--------	--------	--------	--------	--------

Columns 113 through 119

1.1200	1.1300	1.1400	1.1500	1.1600	1.1700	1.1800
--------	--------	--------	--------	--------	--------	--------

Columns 120 through 126

1.1900	1.2000	1.2100	1.2200	1.2300	1.2400	1.2500
--------	--------	--------	--------	--------	--------	--------

Columns 127 through 133

1.2600	1.2700	1.2800	1.2900	1.3000	1.3100	1.3200
--------	--------	--------	--------	--------	--------	--------

Columns 134 through 140

1.3300	1.3400	1.3500	1.3600	1.3700	1.3800	1.3900
--------	--------	--------	--------	--------	--------	--------

Columns 141 through 147

1.4000	1.4100	1.4200	1.4300	1.4400	1.4500	1.4600
--------	--------	--------	--------	--------	--------	--------

Columns 148 through 154

1.4700	1.4800	1.4900	1.5000	1.5100	1.5200	1.5300
--------	--------	--------	--------	--------	--------	--------

Columns 155 through 161

1.5400	1.5500	1.5600	1.5700	1.5800	1.5900	1.6000
--------	--------	--------	--------	--------	--------	--------

Columns 162 through 168

1.6100	1.6200	1.6300	1.6400	1.6500	1.6600	1.6700
--------	--------	--------	--------	--------	--------	--------

Columns 169 through 175

1.6800	1.6900	1.7000	1.7100	1.7200	1.7300	1.7400
--------	--------	--------	--------	--------	--------	--------

Columns 176 through 182

1.7500	1.7600	1.7700	1.7800	1.7900	1.8000	1.8100
--------	--------	--------	--------	--------	--------	--------

Columns 183 through 189

1.8200	1.8300	1.8400	1.8500	1.8600	1.8700	1.8800
--------	--------	--------	--------	--------	--------	--------

Columns 190 through 196

1.8900	1.9000	1.9100	1.9200	1.9300	1.9400	1.9500
--------	--------	--------	--------	--------	--------	--------

Columns 197 through 203

1.9600	1.9700	1.9800	1.9900	2.0000	2.0100	2.0200
--------	--------	--------	--------	--------	--------	--------

Columns 204 through 210

2.0300	2.0400	2.0500	2.0600	2.0700	2.0800	2.0900
--------	--------	--------	--------	--------	--------	--------

Columns 211 through 217

2.1000	2.1100	2.1200	2.1300	2.1400	2.1500	2.1600
--------	--------	--------	--------	--------	--------	--------

Columns 218 through 224

2.1700	2.1800	2.1900	2.2000	2.2100	2.2200	2.2300
--------	--------	--------	--------	--------	--------	--------

Columns 225 through 231

2.2400	2.2500	2.2600	2.2700	2.2800	2.2900	2.3000
--------	--------	--------	--------	--------	--------	--------

Columns 232 through 238

2.3100	2.3200	2.3300	2.3400	2.3500	2.3600	2.3700
--------	--------	--------	--------	--------	--------	--------

Columns 239 through 245

2.3800	2.3900	2.4000	2.4100	2.4200	2.4300	2.4400
--------	--------	--------	--------	--------	--------	--------

Columns 246 through 252

2.4500	2.4600	2.4700	2.4800	2.4900	2.5000	2.5100
--------	--------	--------	--------	--------	--------	--------

Columns 253 through 259

2.5200	2.5300	2.5400	2.5500	2.5600	2.5700	2.5800
--------	--------	--------	--------	--------	--------	--------

Columns 260 through 266

2.5900	2.6000	2.6100	2.6200	2.6300	2.6400	2.6500
--------	--------	--------	--------	--------	--------	--------

Columns 267 through 273

2.6600	2.6700	2.6800	2.6900	2.7000	2.7100	2.7200
--------	--------	--------	--------	--------	--------	--------

Columns 274 through 280

2.7300	2.7400	2.7500	2.7600	2.7700	2.7800	2.7900
--------	--------	--------	--------	--------	--------	--------

Columns 281 through 287

2.8000	2.8100	2.8200	2.8300	2.8400	2.8500	2.8600
--------	--------	--------	--------	--------	--------	--------

Columns 288 through 294

2.8700	2.8800	2.8900	2.9000	2.9100	2.9200	2.9300
--------	--------	--------	--------	--------	--------	--------

Columns 295 through 301

2.9400	2.9500	2.9600	2.9700	2.9800	2.9900	3.0000
--------	--------	--------	--------	--------	--------	--------

Columns 302 through 308

3.0100	3.0200	3.0300	3.0400	3.0500	3.0600	3.0700
--------	--------	--------	--------	--------	--------	--------

Columns 309 through 315

3.0800	3.0900	3.1000	3.1100	3.1200	3.1300	3.1400
--------	--------	--------	--------	--------	--------	--------

Columns 316 through 322

3.1500	3.1600	3.1700	3.1800	3.1900	3.2000	3.2100
--------	--------	--------	--------	--------	--------	--------

Columns 323 through 329

3.2200	3.2300	3.2400	3.2500	3.2600	3.2700	3.2800
--------	--------	--------	--------	--------	--------	--------

Columns 330 through 336

3.2900	3.3000	3.3100	3.3200	3.3300	3.3400	3.3500
--------	--------	--------	--------	--------	--------	--------

Columns 337 through 343

3.3600	3.3700	3.3800	3.3900	3.4000	3.4100	3.4200
--------	--------	--------	--------	--------	--------	--------

Columns 344 through 350

3.4300	3.4400	3.4500	3.4600	3.4700	3.4800	3.4900
--------	--------	--------	--------	--------	--------	--------

Columns 351 through 357

3.5000	3.5100	3.5200	3.5300	3.5400	3.5500	3.5600
--------	--------	--------	--------	--------	--------	--------

Columns 358 through 364

3.5700	3.5800	3.5900	3.6000	3.6100	3.6200	3.6300
--------	--------	--------	--------	--------	--------	--------

Columns 365 through 371

3.6400	3.6500	3.6600	3.6700	3.6800	3.6900	3.7000
--------	--------	--------	--------	--------	--------	--------

Columns 372 through 378

3.7100	3.7200	3.7300	3.7400	3.7500	3.7600	3.7700
--------	--------	--------	--------	--------	--------	--------

Columns 379 through 385

3.7800	3.7900	3.8000	3.8100	3.8200	3.8300	3.8400
--------	--------	--------	--------	--------	--------	--------

Columns 386 through 392

3.8500	3.8600	3.8700	3.8800	3.8900	3.9000	3.9100
--------	--------	--------	--------	--------	--------	--------

Columns 393 through 399

3.9200	3.9300	3.9400	3.9500	3.9600	3.9700	3.9800
--------	--------	--------	--------	--------	--------	--------

Columns 400 through 406

3.9900	4.0000	4.0100	4.0200	4.0300	4.0400	4.0500
--------	--------	--------	--------	--------	--------	--------

Columns 407 through 413

4.0600	4.0700	4.0800	4.0900	4.1000	4.1100	4.1200
--------	--------	--------	--------	--------	--------	--------

Columns 414 through 420

4.1300	4.1400	4.1500	4.1600	4.1700	4.1800	4.1900
--------	--------	--------	--------	--------	--------	--------

Columns 421 through 427

4.2000	4.2100	4.2200	4.2300	4.2400	4.2500	4.2600
--------	--------	--------	--------	--------	--------	--------

Columns 428 through 434

4.2700	4.2800	4.2900	4.3000	4.3100	4.3200	4.3300
--------	--------	--------	--------	--------	--------	--------

Columns 435 through 441

4.3400	4.3500	4.3600	4.3700	4.3800	4.3900	4.4000
--------	--------	--------	--------	--------	--------	--------

Columns 442 through 448

4.4100	4.4200	4.4300	4.4400	4.4500	4.4600	4.4700
--------	--------	--------	--------	--------	--------	--------

Columns 449 through 455

4.4800	4.4900	4.5000	4.5100	4.5200	4.5300	4.5400
--------	--------	--------	--------	--------	--------	--------

Columns 456 through 462

4.5500	4.5600	4.5700	4.5800	4.5900	4.6000	4.6100
--------	--------	--------	--------	--------	--------	--------

Columns 463 through 469

4.6200	4.6300	4.6400	4.6500	4.6600	4.6700	4.6800
--------	--------	--------	--------	--------	--------	--------

Columns 470 through 476

4.6900	4.7000	4.7100	4.7200	4.7300	4.7400	4.7500
--------	--------	--------	--------	--------	--------	--------

Columns 477 through 483

4.7600	4.7700	4.7800	4.7900	4.8000	4.8100	4.8200
--------	--------	--------	--------	--------	--------	--------

Columns 484 through 490

4.8300	4.8400	4.8500	4.8600	4.8700	4.8800	4.8900
--------	--------	--------	--------	--------	--------	--------

Columns 491 through 497

4.9000	4.9100	4.9200	4.9300	4.9400	4.9500	4.9600
--------	--------	--------	--------	--------	--------	--------

Columns 498 through 504

4.9700	4.9800	4.9900	5.0000	5.0100	5.0200	5.0300
--------	--------	--------	--------	--------	--------	--------

Columns 505 through 511

5.0400	5.0500	5.0600	5.0700	5.0800	5.0900	5.1000
--------	--------	--------	--------	--------	--------	--------

Columns 512 through 518

5.1100	5.1200	5.1300	5.1400	5.1500	5.1600	5.1700
--------	--------	--------	--------	--------	--------	--------

Columns 519 through 525

5.1800	5.1900	5.2000	5.2100	5.2200	5.2300	5.2400
--------	--------	--------	--------	--------	--------	--------

Columns 526 through 532

5.2500	5.2600	5.2700	5.2800	5.2900	5.3000	5.3100
--------	--------	--------	--------	--------	--------	--------

Columns 533 through 539

5.3200	5.3300	5.3400	5.3500	5.3600	5.3700	5.3800
--------	--------	--------	--------	--------	--------	--------

Columns 540 through 546

5.3900	5.4000	5.4100	5.4200	5.4300	5.4400	5.4500
--------	--------	--------	--------	--------	--------	--------

Columns 547 through 553

5.4600	5.4700	5.4800	5.4900	5.5000	5.5100	5.5200
--------	--------	--------	--------	--------	--------	--------

Columns 554 through 560

5.5300	5.5400	5.5500	5.5600	5.5700	5.5800	5.5900
--------	--------	--------	--------	--------	--------	--------

Columns 561 through 567

5.6000	5.6100	5.6200	5.6300	5.6400	5.6500	5.6600
--------	--------	--------	--------	--------	--------	--------

Columns 568 through 574

5.6700	5.6800	5.6900	5.7000	5.7100	5.7200	5.7300
--------	--------	--------	--------	--------	--------	--------

Columns 575 through 581

5.7400	5.7500	5.7600	5.7700	5.7800	5.7900	5.8000
--------	--------	--------	--------	--------	--------	--------

Columns 582 through 588

5.8100	5.8200	5.8300	5.8400	5.8500	5.8600	5.8700
--------	--------	--------	--------	--------	--------	--------

Columns 589 through 595

5.8800	5.8900	5.9000	5.9100	5.9200	5.9300	5.9400
--------	--------	--------	--------	--------	--------	--------

Columns 596 through 602

5.9500	5.9600	5.9700	5.9800	5.9900	6.0000	6.0100
--------	--------	--------	--------	--------	--------	--------

Columns 603 through 609

6.0200	6.0300	6.0400	6.0500	6.0600	6.0700	6.0800
--------	--------	--------	--------	--------	--------	--------

Columns 610 through 616

6.0900	6.1000	6.1100	6.1200	6.1300	6.1400	6.1500
--------	--------	--------	--------	--------	--------	--------

Columns 617 through 623

6.1600	6.1700	6.1800	6.1900	6.2000	6.2100	6.2200
--------	--------	--------	--------	--------	--------	--------

Columns 624 through 630

6.2300	6.2400	6.2500	6.2600	6.2700	6.2800	6.2900
--------	--------	--------	--------	--------	--------	--------

Columns 631 through 637

6.3000	6.3100	6.3200	6.3300	6.3400	6.3500	6.3600
--------	--------	--------	--------	--------	--------	--------

Columns 638 through 644

6.3700	6.3800	6.3900	6.4000	6.4100	6.4200	6.4300
--------	--------	--------	--------	--------	--------	--------

Columns 645 through 651

6.4400	6.4500	6.4600	6.4700	6.4800	6.4900	6.5000
--------	--------	--------	--------	--------	--------	--------

Columns 652 through 658

6.5100	6.5200	6.5300	6.5400	6.5500	6.5600	6.5700
--------	--------	--------	--------	--------	--------	--------

Columns 659 through 665

6.5800	6.5900	6.6000	6.6100	6.6200	6.6300	6.6400
--------	--------	--------	--------	--------	--------	--------

Columns 666 through 672

6.6500	6.6600	6.6700	6.6800	6.6900	6.7000	6.7100
--------	--------	--------	--------	--------	--------	--------

Columns 673 through 679

6.7200	6.7300	6.7400	6.7500	6.7600	6.7700	6.7800
--------	--------	--------	--------	--------	--------	--------

Columns 680 through 686

6.7900	6.8000	6.8100	6.8200	6.8300	6.8400	6.8500
--------	--------	--------	--------	--------	--------	--------

Columns 687 through 693

6.8600	6.8700	6.8800	6.8900	6.9000	6.9100	6.9200
--------	--------	--------	--------	--------	--------	--------

Columns 694 through 700

6.9300	6.9400	6.9500	6.9600	6.9700	6.9800	6.9900
--------	--------	--------	--------	--------	--------	--------

Columns 701 through 707

7.0000	7.0100	7.0200	7.0300	7.0400	7.0500	7.0600
--------	--------	--------	--------	--------	--------	--------

Columns 708 through 714

7.0700	7.0800	7.0900	7.1000	7.1100	7.1200	7.1300
--------	--------	--------	--------	--------	--------	--------

Columns 715 through 721

7.1400	7.1500	7.1600	7.1700	7.1800	7.1900	7.2000
--------	--------	--------	--------	--------	--------	--------

Columns 722 through 728

7.2100	7.2200	7.2300	7.2400	7.2500	7.2600	7.2700
--------	--------	--------	--------	--------	--------	--------

Columns 729 through 735

7.2800	7.2900	7.3000	7.3100	7.3200	7.3300	7.3400
--------	--------	--------	--------	--------	--------	--------

Columns 736 through 742

7.3500	7.3600	7.3700	7.3800	7.3900	7.4000	7.4100
--------	--------	--------	--------	--------	--------	--------

Columns 743 through 749

7.4200	7.4300	7.4400	7.4500	7.4600	7.4700	7.4800
--------	--------	--------	--------	--------	--------	--------

Columns 750 through 756

7.4900	7.5000	7.5100	7.5200	7.5300	7.5400	7.5500
--------	--------	--------	--------	--------	--------	--------

Columns 757 through 763

7.5600	7.5700	7.5800	7.5900	7.6000	7.6100	7.6200
--------	--------	--------	--------	--------	--------	--------

Columns 764 through 770

7.6300	7.6400	7.6500	7.6600	7.6700	7.6800	7.6900
--------	--------	--------	--------	--------	--------	--------

Columns 771 through 777

7.7000	7.7100	7.7200	7.7300	7.7400	7.7500	7.7600
--------	--------	--------	--------	--------	--------	--------

Columns 778 through 784

7.7700 7.7800 7.7900 7.8000 7.8100 7.8200 7.8300

Columns 785 through 791

7.8400 7.8500 7.8600 7.8700 7.8800 7.8900 7.9000

Columns 792 through 798

7.9100 7.9200 7.9300 7.9400 7.9500 7.9600 7.9700

Columns 799 through 805

7.9800 7.9900 8.0000 8.0100 8.0200 8.0300 8.0400

Columns 806 through 812

8.0500 8.0600 8.0700 8.0800 8.0900 8.1000 8.1100

Columns 813 through 819

8.1200 8.1300 8.1400 8.1500 8.1600 8.1700 8.1800

Columns 820 through 826

8.1900 8.2000 8.2100 8.2200 8.2300 8.2400 8.2500

Columns 827 through 833

8.2600	8.2700	8.2800	8.2900	8.3000	8.3100	8.3200
--------	--------	--------	--------	--------	--------	--------

Columns 834 through 840

8.3300	8.3400	8.3500	8.3600	8.3700	8.3800	8.3900
--------	--------	--------	--------	--------	--------	--------

Columns 841 through 847

8.4000	8.4100	8.4200	8.4300	8.4400	8.4500	8.4600
--------	--------	--------	--------	--------	--------	--------

Columns 848 through 854

8.4700	8.4800	8.4900	8.5000	8.5100	8.5200	8.5300
--------	--------	--------	--------	--------	--------	--------

Columns 855 through 861

8.5400	8.5500	8.5600	8.5700	8.5800	8.5900	8.6000
--------	--------	--------	--------	--------	--------	--------

Columns 862 through 868

8.6100	8.6200	8.6300	8.6400	8.6500	8.6600	8.6700
--------	--------	--------	--------	--------	--------	--------

Columns 869 through 875

8.6800	8.6900	8.7000	8.7100	8.7200	8.7300	8.7400
--------	--------	--------	--------	--------	--------	--------

Columns 876 through 882

8.7500	8.7600	8.7700	8.7800	8.7900	8.8000	8.8100
--------	--------	--------	--------	--------	--------	--------

Columns 883 through 889

8.8200	8.8300	8.8400	8.8500	8.8600	8.8700	8.8800
--------	--------	--------	--------	--------	--------	--------

Columns 890 through 896

8.8900	8.9000	8.9100	8.9200	8.9300	8.9400	8.9500
--------	--------	--------	--------	--------	--------	--------

Columns 897 through 903

8.9600	8.9700	8.9800	8.9900	9.0000	9.0100	9.0200
--------	--------	--------	--------	--------	--------	--------

Columns 904 through 910

9.0300	9.0400	9.0500	9.0600	9.0700	9.0800	9.0900
--------	--------	--------	--------	--------	--------	--------

Columns 911 through 917

9.1000 9.1100 9.1200 9.1300 9.1400 9.1500 9.1600

Columns 918 through 924

9.1700 9.1800 9.1900 9.2000 9.2100 9.2200 9.2300

Columns 925 through 931

9.2400 9.2500 9.2600 9.2700 9.2800 9.2900 9.3000

Columns 932 through 938

9.3100 9.3200 9.3300 9.3400 9.3500 9.3600 9.3700

Columns 939 through 945

9.3800 9.3900 9.4000 9.4100 9.4200 9.4300 9.4400

Columns 946 through 952

9.4500 9.4600 9.4700 9.4800 9.4900 9.5000 9.5100

Columns 953 through 959

9.5200	9.5300	9.5400	9.5500	9.5600	9.5700	9.5800
--------	--------	--------	--------	--------	--------	--------

Columns 960 through 966

9.5900	9.6000	9.6100	9.6200	9.6300	9.6400	9.6500
--------	--------	--------	--------	--------	--------	--------

Columns 967 through 973

9.6600	9.6700	9.6800	9.6900	9.7000	9.7100	9.7200
--------	--------	--------	--------	--------	--------	--------

Columns 974 through 980

9.7300	9.7400	9.7500	9.7600	9.7700	9.7800	9.7900
--------	--------	--------	--------	--------	--------	--------

Columns 981 through 987

9.8000	9.8100	9.8200	9.8300	9.8400	9.8500	9.8600
--------	--------	--------	--------	--------	--------	--------

Columns 988 through 994

9.8700	9.8800	9.8900	9.9000	9.9100	9.9200	9.9300
--------	--------	--------	--------	--------	--------	--------

Columns 995 through 1001

9.9400	9.9500	9.9600	9.9700	9.9800	9.9900	10.0000
--------	--------	--------	--------	--------	--------	---------

Columns 1002 through 1008

10.0100	10.0200	10.0300	10.0400	10.0500	10.0600	10.0700
---------	---------	---------	---------	---------	---------	---------

Columns 1009 through 1015

10.0800	10.0900	10.1000	10.1100	10.1200	10.1300	10.1400
---------	---------	---------	---------	---------	---------	---------

Columns 1016 through 1022

10.1500	10.1600	10.1700	10.1800	10.1900	10.2000	10.2100
---------	---------	---------	---------	---------	---------	---------

Columns 1023 through 1029

10.2200	10.2300	10.2400	10.2500	10.2600	10.2700	10.2800
---------	---------	---------	---------	---------	---------	---------

Columns 1030 through 1036

10.2900	10.3000	10.3100	10.3200	10.3300	10.3400	10.3500
---------	---------	---------	---------	---------	---------	---------

Columns 1037 through 1043

10.3600	10.3700	10.3800	10.3900	10.4000	10.4100	10.4200
---------	---------	---------	---------	---------	---------	---------

Columns 1044 through 1050

10.4300	10.4400	10.4500	10.4600	10.4700	10.4800	10.4900
---------	---------	---------	---------	---------	---------	---------

Columns 1051 through 1057

10.5000	10.5100	10.5200	10.5300	10.5400	10.5500	10.5600
---------	---------	---------	---------	---------	---------	---------

Columns 1058 through 1064

10.5700	10.5800	10.5900	10.6000	10.6100	10.6200	10.6300
---------	---------	---------	---------	---------	---------	---------

Columns 1065 through 1071

10.6400	10.6500	10.6600	10.6700	10.6800	10.6900	10.7000
---------	---------	---------	---------	---------	---------	---------

Columns 1072 through 1078

10.7100	10.7200	10.7300	10.7400	10.7500	10.7600	10.7700
---------	---------	---------	---------	---------	---------	---------

Columns 1079 through 1085

10.7800	10.7900	10.8000	10.8100	10.8200	10.8300	10.8400
---------	---------	---------	---------	---------	---------	---------

Columns 1086 through 1092

10.8500 10.8600 10.8700 10.8800 10.8900 10.9000 10.9100

Columns 1093 through 1099

10.9200 10.9300 10.9400 10.9500 10.9600 10.9700 10.9800

Columns 1100 through 1106

10.9900 11.0000 11.0100 11.0200 11.0300 11.0400 11.0500

Columns 1107 through 1113

11.0600 11.0700 11.0800 11.0900 11.1000 11.1100 11.1200

Columns 1114 through 1120

11.1300 11.1400 11.1500 11.1600 11.1700 11.1800 11.1900

Columns 1121 through 1127

11.2000 11.2100 11.2200 11.2300 11.2400 11.2500 11.2600

Columns 1128 through 1134

11.2700 11.2800 11.2900 11.3000 11.3100 11.3200 11.3300

Columns 1135 through 1141

11.3400 11.3500 11.3600 11.3700 11.3800 11.3900 11.4000

Columns 1142 through 1148

11.4100 11.4200 11.4300 11.4400 11.4500 11.4600 11.4700

Columns 1149 through 1155

11.4800 11.4900 11.5000 11.5100 11.5200 11.5300 11.5400

Columns 1156 through 1162

11.5500 11.5600 11.5700 11.5800 11.5900 11.6000 11.6100

Columns 1163 through 1169

11.6200 11.6300 11.6400 11.6500 11.6600 11.6700 11.6800

Columns 1170 through 1176

11.6900 11.7000 11.7100 11.7200 11.7300 11.7400 11.7500

Columns 1177 through 1183

11.7600	11.7700	11.7800	11.7900	11.8000	11.8100	11.8200
---------	---------	---------	---------	---------	---------	---------

Columns 1184 through 1190

11.8300	11.8400	11.8500	11.8600	11.8700	11.8800	11.8900
---------	---------	---------	---------	---------	---------	---------

Columns 1191 through 1197

11.9000	11.9100	11.9200	11.9300	11.9400	11.9500	11.9600
---------	---------	---------	---------	---------	---------	---------

Columns 1198 through 1204

11.9700	11.9800	11.9900	12.0000	12.0100	12.0200	12.0300
---------	---------	---------	---------	---------	---------	---------

Columns 1205 through 1211

12.0400	12.0500	12.0600	12.0700	12.0800	12.0900	12.1000
---------	---------	---------	---------	---------	---------	---------

Columns 1212 through 1218

12.1100	12.1200	12.1300	12.1400	12.1500	12.1600	12.1700
---------	---------	---------	---------	---------	---------	---------

Columns 1219 through 1225

12.1800	12.1900	12.2000	12.2100	12.2200	12.2300	12.2400
---------	---------	---------	---------	---------	---------	---------

Columns 1226 through 1232

12.2500	12.2600	12.2700	12.2800	12.2900	12.3000	12.3100
---------	---------	---------	---------	---------	---------	---------

Columns 1233 through 1239

12.3200	12.3300	12.3400	12.3500	12.3600	12.3700	12.3800
---------	---------	---------	---------	---------	---------	---------

Columns 1240 through 1246

12.3900	12.4000	12.4100	12.4200	12.4300	12.4400	12.4500
---------	---------	---------	---------	---------	---------	---------

Columns 1247 through 1253

12.4600	12.4700	12.4800	12.4900	12.5000	12.5100	12.5200
---------	---------	---------	---------	---------	---------	---------

Columns 1254 through 1260

12.5300	12.5400	12.5500	12.5600	12.5700	12.5800	12.5900
---------	---------	---------	---------	---------	---------	---------

Columns 1261 through 1267

12.6000 12.6100 12.6200 12.6300 12.6400 12.6500 12.6600

Columns 1268 through 1274

12.6700 12.6800 12.6900 12.7000 12.7100 12.7200 12.7300

Columns 1275 through 1281

12.7400 12.7500 12.7600 12.7700 12.7800 12.7900 12.8000

Columns 1282 through 1288

12.8100 12.8200 12.8300 12.8400 12.8500 12.8600 12.8700

Columns 1289 through 1295

12.8800 12.8900 12.9000 12.9100 12.9200 12.9300 12.9400

Columns 1296 through 1302

12.9500 12.9600 12.9700 12.9800 12.9900 13.0000 13.0100

Columns 1303 through 1309

13.0200 13.0300 13.0400 13.0500 13.0600 13.0700 13.0800

Columns 1310 through 1316

13.0900 13.1000 13.1100 13.1200 13.1300 13.1400 13.1500

Columns 1317 through 1323

13.1600 13.1700 13.1800 13.1900 13.2000 13.2100 13.2200

Columns 1324 through 1330

13.2300 13.2400 13.2500 13.2600 13.2700 13.2800 13.2900

Columns 1331 through 1337

13.3000 13.3100 13.3200 13.3300 13.3400 13.3500 13.3600

Columns 1338 through 1344

13.3700 13.3800 13.3900 13.4000 13.4100 13.4200 13.4300

Columns 1345 through 1351

13.4400 13.4500 13.4600 13.4700 13.4800 13.4900 13.5000

Columns 1352 through 1358

13.5100	13.5200	13.5300	13.5400	13.5500	13.5600	13.5700
---------	---------	---------	---------	---------	---------	---------

Columns 1359 through 1365

13.5800	13.5900	13.6000	13.6100	13.6200	13.6300	13.6400
---------	---------	---------	---------	---------	---------	---------

Columns 1366 through 1372

13.6500	13.6600	13.6700	13.6800	13.6900	13.7000	13.7100
---------	---------	---------	---------	---------	---------	---------

Columns 1373 through 1379

13.7200	13.7300	13.7400	13.7500	13.7600	13.7700	13.7800
---------	---------	---------	---------	---------	---------	---------

Columns 1380 through 1386

13.7900	13.8000	13.8100	13.8200	13.8300	13.8400	13.8500
---------	---------	---------	---------	---------	---------	---------

Columns 1387 through 1393

13.8600	13.8700	13.8800	13.8900	13.9000	13.9100	13.9200
---------	---------	---------	---------	---------	---------	---------

Columns 1394 through 1400

13.9300	13.9400	13.9500	13.9600	13.9700	13.9800	13.9900
---------	---------	---------	---------	---------	---------	---------

Columns 1401 through 1407

14.0000	14.0100	14.0200	14.0300	14.0400	14.0500	14.0600
---------	---------	---------	---------	---------	---------	---------

Columns 1408 through 1414

14.0700	14.0800	14.0900	14.1000	14.1100	14.1200	14.1300
---------	---------	---------	---------	---------	---------	---------

Columns 1415 through 1421

14.1400	14.1500	14.1600	14.1700	14.1800	14.1900	14.2000
---------	---------	---------	---------	---------	---------	---------

Columns 1422 through 1428

14.2100	14.2200	14.2300	14.2400	14.2500	14.2600	14.2700
---------	---------	---------	---------	---------	---------	---------

Columns 1429 through 1435

14.2800	14.2900	14.3000	14.3100	14.3200	14.3300	14.3400
---------	---------	---------	---------	---------	---------	---------

Columns 1436 through 1442

14.3500 14.3600 14.3700 14.3800 14.3900 14.4000 14.4100

Columns 1443 through 1449

14.4200 14.4300 14.4400 14.4500 14.4600 14.4700 14.4800

Columns 1450 through 1456

14.4900 14.5000 14.5100 14.5200 14.5300 14.5400 14.5500

Columns 1457 through 1463

14.5600 14.5700 14.5800 14.5900 14.6000 14.6100 14.6200

Columns 1464 through 1470

14.6300 14.6400 14.6500 14.6600 14.6700 14.6800 14.6900

Columns 1471 through 1477

14.7000 14.7100 14.7200 14.7300 14.7400 14.7500 14.7600

Columns 1478 through 1484

14.7700 14.7800 14.7900 14.8000 14.8100 14.8200 14.8300

Columns 1485 through 1491

14.8400 14.8500 14.8600 14.8700 14.8800 14.8900 14.9000

Columns 1492 through 1498

14.9100 14.9200 14.9300 14.9400 14.9500 14.9600 14.9700

Columns 1499 through 1501

14.9800 14.9900 15.0000

xn =

[1/10, cos(1/100)/10 - exp(-1/50)/10 + exp(-3/100)/10 + sin(1/100)/10,
cos(1/50)/10 - exp(-1/25)/10 + exp(-3/50)/10 + sin(1/50)/10, cos(3/100)/10 - exp(-
3/50)/10 + exp(-9/100)/10 + sin(3/100)/10, cos(1/25)/10 - exp(-2/25)/10 + exp(-
3/25)/10 + sin(1/25)/10, cos(1/20)/10 - exp(-1/10)/10 + exp(-3/20)/10 +
sin(1/20)/10, cos(3/50)/10 - exp(-3/25)/10 + exp(-9/50)/10 + sin(3/50)/10,
cos(7/100)/10 - exp(-7/50)/10 + exp(-21/100)/10 + sin(7/100)/10, cos(2/25)/10 -
exp(-4/25)/10 + exp(-6/25)/10 + sin(2/25)/10, cos(9/100)/10 - exp(-9/50)/10 + exp(-
27/100)/10 + sin(9/100)/10, cos(1/10)/10 - exp(-1/5)/10 + exp(-3/10)/10 +
sin(1/10)/10, cos(11/100)/10 - exp(-11/50)/10 + exp(-33/100)/10 + sin(11/100)/10,
cos(3/25)/10 - exp(-6/25)/10 + exp(-9/25)/10 + sin(3/25)/10, cos(13/100)/10 - exp(-
13/50)/10 + exp(-39/100)/10 + sin(13/100)/10, cos(7/50)/10 - exp(-7/25)/10 + exp(-
21/50)/10 + sin(7/50)/10, cos(3/20)/10 - exp(-3/10)/10 + exp(-9/20)/10 +
sin(3/20)/10, cos(4/25)/10 - exp(-8/25)/10 + exp(-12/25)/10 + sin(4/25)/10,
cos(17/100)/10 - exp(-17/50)/10 + exp(-51/100)/10 + sin(17/100)/10, cos(9/50)/10 -
exp(-9/25)/10 + exp(-27/50)/10 + sin(9/50)/10, cos(19/100)/10 - exp(-19/50)/10 +
exp(-57/100)/10 + sin(19/100)/10, cos(1/5)/10 - exp(-2/5)/10 + exp(-3/5)/10 +
sin(1/5)/10, cos(21/100)/10 - exp(-21/50)/10 + exp(-63/100)/10 + sin(21/100)/10,
cos(11/50)/10 - exp(-11/25)/10 + exp(-33/50)/10 + sin(11/50)/10, cos(23/100)/10 -

$\exp(-23/50)/10 + \exp(-69/100)/10 + \sin(23/100)/10, \cos(6/25)/10 - \exp(-12/25)/10 +$
 $\exp(-18/25)/10 + \sin(6/25)/10, \cos(1/4)/10 - \exp(-1/2)/10 + \exp(-3/4)/10 +$
 $\sin(1/4)/10, \cos(13/50)/10 - \exp(-13/25)/10 + \exp(-39/50)/10 + \sin(13/50)/10,$
 $\cos(27/100)/10 - \exp(-27/50)/10 + \exp(-81/100)/10 + \sin(27/100)/10, \cos(7/25)/10 -$
 $\exp(-14/25)/10 + \exp(-21/25)/10 + \sin(7/25)/10, \cos(29/100)/10 - \exp(-29/50)/10 +$
 $\exp(-87/100)/10 + \sin(29/100)/10, \cos(3/10)/10 - \exp(-3/5)/10 + \exp(-9/10)/10 +$
 $\sin(3/10)/10, \cos(31/100)/10 - \exp(-31/50)/10 + \exp(-93/100)/10 + \sin(31/100)/10,$
 $\cos(8/25)/10 - \exp(-16/25)/10 + \exp(-24/25)/10 + \sin(8/25)/10, \cos(33/100)/10 -$
 $\exp(-33/50)/10 + \exp(-99/100)/10 + \sin(33/100)/10, \cos(17/50)/10 - \exp(-17/25)/10 +$
 $\exp(-51/50)/10 + \sin(17/50)/10, \cos(7/20)/10 - \exp(-7/10)/10 + \exp(-21/20)/10 +$
 $\sin(7/20)/10, \cos(9/25)/10 - \exp(-18/25)/10 + \exp(-27/25)/10 + \sin(9/25)/10,$
 $\cos(37/100)/10 - \exp(-37/50)/10 + \exp(-111/100)/10 + \sin(37/100)/10, \cos(19/50)/10$
 $- \exp(-19/25)/10 + \exp(-57/50)/10 + \sin(19/50)/10, \cos(39/100)/10 - \exp(-39/50)/10$
 $+ \exp(-117/100)/10 + \sin(39/100)/10, \cos(2/5)/10 - \exp(-4/5)/10 + \exp(-6/5)/10 +$
 $\sin(2/5)/10, \cos(41/100)/10 - \exp(-41/50)/10 + \exp(-123/100)/10 + \sin(41/100)/10,$
 $\cos(21/50)/10 - \exp(-21/25)/10 + \exp(-63/50)/10 + \sin(21/50)/10, \cos(43/100)/10 -$
 $\exp(-43/50)/10 + \exp(-129/100)/10 + \sin(43/100)/10, \cos(11/25)/10 - \exp(-22/25)/10$
 $+ \exp(-33/25)/10 + \sin(11/25)/10, \cos(9/20)/10 - \exp(-9/10)/10 + \exp(-27/20)/10 +$
 $\sin(9/20)/10, \cos(23/50)/10 - \exp(-23/25)/10 + \exp(-69/50)/10 + \sin(23/50)/10,$
 $\cos(47/100)/10 - \exp(-47/50)/10 + \exp(-141/100)/10 + \sin(47/100)/10, \cos(12/25)/10$
 $- \exp(-24/25)/10 + \exp(-36/25)/10 + \sin(12/25)/10, \cos(49/100)/10 - \exp(-49/50)/10$
 $+ \exp(-147/100)/10 + \sin(49/100)/10, \cos(1/2)/10 - \exp(-1)/10 + \exp(-3/2)/10 +$
 $\sin(1/2)/10, \cos(51/100)/10 - \exp(-51/50)/10 + \exp(-153/100)/10 + \sin(51/100)/10,$
 $\cos(13/25)/10 - \exp(-26/25)/10 + \exp(-39/25)/10 + \sin(13/25)/10, \cos(53/100)/10 -$
 $\exp(-53/50)/10 + \exp(-159/100)/10 + \sin(53/100)/10, \cos(27/50)/10 - \exp(-27/25)/10$
 $+ \exp(-81/50)/10 + \sin(27/50)/10, \cos(11/20)/10 - \exp(-11/10)/10 + \exp(-33/20)/10 +$
 $\sin(11/20)/10, \cos(14/25)/10 - \exp(-28/25)/10 + \exp(-42/25)/10 + \sin(14/25)/10,$
 $\cos(57/100)/10 - \exp(-57/50)/10 + \exp(-171/100)/10 + \sin(57/100)/10, \cos(29/50)/10$
 $- \exp(-29/25)/10 + \exp(-87/50)/10 + \sin(29/50)/10, \cos(59/100)/10 - \exp(-59/50)/10$
 $+ \exp(-177/100)/10 + \sin(59/100)/10, \cos(3/5)/10 - \exp(-6/5)/10 + \exp(-9/5)/10 +$
 $\sin(3/5)/10, \cos(61/100)/10 - \exp(-61/50)/10 + \exp(-183/100)/10 + \sin(61/100)/10,$
 $\cos(31/50)/10 - \exp(-31/25)/10 + \exp(-93/50)/10 + \sin(31/50)/10, \cos(63/100)/10 -$
 $\exp(-63/50)/10 + \exp(-189/100)/10 + \sin(63/100)/10, \cos(16/25)/10 - \exp(-32/25)/10$
 $+ \exp(-48/25)/10 + \sin(16/25)/10, \cos(13/20)/10 - \exp(-13/10)/10 + \exp(-39/20)/10 +$
 $\sin(13/20)/10, \cos(33/50)/10 - \exp(-33/25)/10 + \exp(-99/50)/10 + \sin(33/50)/10,$
 $\cos(67/100)/10 - \exp(-67/50)/10 + \exp(-201/100)/10 + \sin(67/100)/10, \cos(17/25)/10$
 $- \exp(-34/25)/10 + \exp(-51/25)/10 + \sin(17/25)/10, \cos(69/100)/10 - \exp(-69/50)/10$
 $+ \exp(-207/100)/10 + \sin(69/100)/10, \cos(7/10)/10 - \exp(-7/5)/10 + \exp(-21/10)/10 +$
 $\sin(7/10)/10, \cos(71/100)/10 - \exp(-71/50)/10 + \exp(-213/100)/10 + \sin(71/100)/10,$
 $\cos(18/25)/10 - \exp(-36/25)/10 + \exp(-54/25)/10 + \sin(18/25)/10, \cos(73/100)/10 -$
 $\exp(-73/50)/10 + \exp(-219/100)/10 + \sin(73/100)/10, \cos(37/50)/10 - \exp(-37/25)/10$
 $+ \exp(-111/50)/10 + \sin(37/50)/10, \cos(3/4)/10 - \exp(-3/2)/10 + \exp(-9/4)/10 +$
 $\sin(3/4)/10, \cos(19/25)/10 - \exp(-38/25)/10 + \exp(-57/25)/10 + \sin(19/25)/10,$
 $\cos(77/100)/10 - \exp(-77/50)/10 + \exp(-231/100)/10 + \sin(77/100)/10, \cos(39/50)/10$
 $- \exp(-39/25)/10 + \exp(-117/50)/10 + \sin(39/50)/10, \cos(79/100)/10 - \exp(-79/50)/10$
 $+ \exp(-237/100)/10 + \sin(79/100)/10, \cos(4/5)/10 - \exp(-8/5)/10 + \exp(-12/5)/10 +$
 $\sin(4/5)/10, \cos(81/100)/10 - \exp(-81/50)/10 + \exp(-243/100)/10 + \sin(81/100)/10,$
 $\cos(41/50)/10 - \exp(-41/25)/10 + \exp(-123/50)/10 + \sin(41/50)/10, \cos(83/100)/10 -$
 $\exp(-83/50)/10 + \exp(-249/100)/10 + \sin(83/100)/10, \cos(21/25)/10 - \exp(-42/25)/10$
 $+ \exp(-63/25)/10 + \sin(21/25)/10, \cos(17/20)/10 - \exp(-17/10)/10 + \exp(-51/20)/10 +$
 $\sin(17/20)/10, \cos(43/50)/10 - \exp(-43/25)/10 + \exp(-129/50)/10 + \sin(43/50)/10,$
 $\cos(87/100)/10 - \exp(-87/50)/10 + \exp(-261/100)/10 + \sin(87/100)/10, \cos(22/25)/10$
 $- \exp(-44/25)/10 + \exp(-66/25)/10 + \sin(22/25)/10, \cos(89/100)/10 - \exp(-89/50)/10$
 $+ \exp(-267/100)/10 + \sin(89/100)/10, \cos(9/10)/10 - \exp(-9/5)/10 + \exp(-27/10)/10 +$
 $\sin(9/10)/10, \cos(91/100)/10 - \exp(-91/50)/10 + \exp(-273/100)/10 + \sin(91/100)/10,$

$\cos(23/25)/10 - \exp(-46/25)/10 + \exp(-69/25)/10 + \sin(23/25)/10, \cos(93/100)/10 - \exp(-93/50)/10 + \exp(-279/100)/10 + \sin(93/100)/10, \cos(47/50)/10 - \exp(-47/25)/10 + \exp(-141/50)/10 + \sin(47/50)/10, \cos(19/20)/10 - \exp(-19/10)/10 + \exp(-57/20)/10 + \sin(19/20)/10, \cos(24/25)/10 - \exp(-48/25)/10 + \exp(-72/25)/10 + \sin(24/25)/10, \cos(97/100)/10 - \exp(-97/50)/10 + \exp(-291/100)/10 + \sin(97/100)/10, \cos(49/50)/10 - \exp(-49/25)/10 + \exp(-147/50)/10 + \sin(49/50)/10, \cos(99/100)/10 - \exp(-99/50)/10 + \exp(-297/100)/10 + \sin(99/100)/10, \cos(1)/10 - \exp(-2)/10 + \exp(-3)/10 + \sin(1)/10, \cos(101/100)/10 - \exp(-101/50)/10 + \exp(-303/100)/10 + \sin(101/100)/10, \cos(51/50)/10 - \exp(-51/25)/10 + \exp(-153/50)/10 + \sin(51/50)/10, \cos(103/100)/10 - \exp(-103/50)/10 + \exp(-309/100)/10 + \sin(103/100)/10, \cos(26/25)/10 - \exp(-52/25)/10 + \exp(-78/25)/10 + \sin(26/25)/10, \cos(21/20)/10 - \exp(-21/10)/10 + \exp(-63/20)/10 + \sin(21/20)/10, \cos(53/50)/10 - \exp(-53/25)/10 + \exp(-159/50)/10 + \sin(53/50)/10, \cos(107/100)/10 - \exp(-107/50)/10 + \exp(-321/100)/10 + \sin(107/100)/10, \cos(27/25)/10 - \exp(-54/25)/10 + \exp(-81/25)/10 + \sin(27/25)/10, \cos(109/100)/10 - \exp(-109/50)/10 + \exp(-327/100)/10 + \sin(109/100)/10, \cos(11/10)/10 - \exp(-11/5)/10 + \exp(-33/10)/10 + \sin(11/10)/10, \cos(111/100)/10 - \exp(-111/50)/10 + \exp(-333/100)/10 + \sin(111/100)/10, \cos(28/25)/10 - \exp(-56/25)/10 + \exp(-84/25)/10 + \sin(28/25)/10, \cos(113/100)/10 - \exp(-113/50)/10 + \exp(-339/100)/10 + \sin(113/100)/10, \cos(57/50)/10 - \exp(-57/25)/10 + \exp(-171/50)/10 + \sin(57/50)/10, \cos(23/20)/10 - \exp(-23/10)/10 + \exp(-69/20)/10 + \sin(23/20)/10, \cos(29/25)/10 - \exp(-58/25)/10 + \exp(-87/25)/10 + \sin(29/25)/10, \cos(117/100)/10 - \exp(-117/50)/10 + \exp(-351/100)/10 + \sin(117/100)/10, \cos(59/50)/10 - \exp(-59/25)/10 + \exp(-177/50)/10 + \sin(59/50)/10, \cos(119/100)/10 - \exp(-119/50)/10 + \exp(-357/100)/10 + \sin(119/100)/10, \cos(6/5)/10 - \exp(-12/5)/10 + \exp(-18/5)/10 + \sin(6/5)/10, \cos(121/100)/10 - \exp(-121/50)/10 + \exp(-363/100)/10 + \sin(121/100)/10, \cos(61/50)/10 - \exp(-61/25)/10 + \exp(-183/50)/10 + \sin(61/50)/10, \cos(123/100)/10 - \exp(-123/50)/10 + \exp(-369/100)/10 + \sin(123/100)/10, \cos(31/25)/10 - \exp(-62/25)/10 + \exp(-93/25)/10 + \sin(31/25)/10, \cos(5/4)/10 - \exp(-5/2)/10 + \exp(-15/4)/10 + \sin(5/4)/10, \cos(63/50)/10 - \exp(-63/25)/10 + \exp(-189/50)/10 + \sin(63/50)/10, \cos(127/100)/10 - \exp(-127/50)/10 + \exp(-381/100)/10 + \sin(127/100)/10, \cos(32/25)/10 - \exp(-64/25)/10 + \exp(-96/25)/10 + \sin(32/25)/10, \cos(129/100)/10 - \exp(-129/50)/10 + \exp(-387/100)/10 + \sin(129/100)/10, \cos(13/10)/10 - \exp(-13/5)/10 + \exp(-39/10)/10 + \sin(13/10)/10, \cos(131/100)/10 - \exp(-131/50)/10 + \exp(-393/100)/10 + \sin(131/100)/10, \cos(33/25)/10 - \exp(-66/25)/10 + \exp(-99/25)/10 + \sin(33/25)/10, \cos(133/100)/10 - \exp(-133/50)/10 + \exp(-399/100)/10 + \sin(133/100)/10, \cos(67/50)/10 - \exp(-67/25)/10 + \exp(-201/50)/10 + \sin(67/50)/10, \cos(27/20)/10 - \exp(-27/10)/10 + \exp(-81/20)/10 + \sin(27/20)/10, \cos(34/25)/10 - \exp(-68/25)/10 + \exp(-102/25)/10 + \sin(34/25)/10, \cos(137/100)/10 - \exp(-137/50)/10 + \exp(-411/100)/10 + \sin(137/100)/10, \cos(69/50)/10 - \exp(-69/25)/10 + \exp(-207/50)/10 + \sin(69/50)/10, \cos(139/100)/10 - \exp(-139/50)/10 + \exp(-417/100)/10 + \sin(139/100)/10, \cos(7/5)/10 - \exp(-14/5)/10 + \exp(-21/5)/10 + \sin(7/5)/10, \cos(141/100)/10 - \exp(-141/50)/10 + \exp(-423/100)/10 + \sin(141/100)/10, \cos(71/50)/10 - \exp(-71/25)/10 + \exp(-213/50)/10 + \sin(71/50)/10, \cos(143/100)/10 - \exp(-143/50)/10 + \exp(-429/100)/10 + \sin(143/100)/10, \cos(36/25)/10 - \exp(-72/25)/10 + \exp(-108/25)/10 + \sin(36/25)/10, \cos(29/20)/10 - \exp(-29/10)/10 + \exp(-87/20)/10 + \sin(29/20)/10, \cos(73/50)/10 - \exp(-73/25)/10 + \exp(-219/50)/10 + \sin(73/50)/10, \cos(147/100)/10 - \exp(-147/50)/10 + \exp(-441/100)/10 + \sin(147/100)/10, \cos(37/25)/10 - \exp(-74/25)/10 + \exp(-111/25)/10 + \sin(37/25)/10, \cos(149/100)/10 - \exp(-149/50)/10 + \exp(-447/100)/10 + \sin(149/100)/10, \cos(3/2)/10 - \exp(-3)/10 + \exp(-9/2)/10 + \sin(3/2)/10, \cos(151/100)/10 - \exp(-151/50)/10 + \exp(-453/100)/10 + \sin(151/100)/10, \cos(38/25)/10 - \exp(-76/25)/10 + \exp(-114/25)/10 + \sin(38/25)/10, \cos(153/100)/10 - \exp(-153/50)/10 + \exp(-459/100)/10 + \sin(153/100)/10, \cos(77/50)/10 - \exp(-77/25)/10 + \exp(-231/50)/10 + \sin(77/50)/10, \cos(31/20)/10 - \exp(-31/10)/10 + \exp(-93/20)/10 + \sin(31/20)/10, \cos(39/25)/10 - \exp(-78/25)/10 + \exp(-117/25)/10 +$

$\sin(39/25)/10, \cos(157/100)/10 - \exp(-157/50)/10 + \exp(-471/100)/10 +$
 $\sin(157/100)/10, \cos(79/50)/10 - \exp(-79/25)/10 + \exp(-237/50)/10 + \sin(79/50)/10,$
 $\cos(159/100)/10 - \exp(-159/50)/10 + \exp(-477/100)/10 + \sin(159/100)/10, \cos(8/5)/10$
 $- \exp(-16/5)/10 + \exp(-24/5)/10 + \sin(8/5)/10, \cos(161/100)/10 - \exp(-161/50)/10 +$
 $\exp(-483/100)/10 + \sin(161/100)/10, \cos(81/50)/10 - \exp(-81/25)/10 + \exp(-$
 $243/50)/10 + \sin(81/50)/10, \cos(163/100)/10 - \exp(-163/50)/10 + \exp(-489/100)/10 +$
 $\sin(163/100)/10, \cos(41/25)/10 - \exp(-82/25)/10 + \exp(-123/25)/10 + \sin(41/25)/10,$
 $\cos(33/20)/10 - \exp(-33/10)/10 + \exp(-99/20)/10 + \sin(33/20)/10, \cos(83/50)/10 -$
 $\exp(-83/25)/10 + \exp(-249/50)/10 + \sin(83/50)/10, \cos(167/100)/10 - \exp(-167/50)/10$
 $+ \exp(-501/100)/10 + \sin(167/100)/10, \cos(42/25)/10 - \exp(-84/25)/10 + \exp(-$
 $126/25)/10 + \sin(42/25)/10, \cos(169/100)/10 - \exp(-169/50)/10 + \exp(-507/100)/10 +$
 $\sin(169/100)/10, \cos(17/10)/10 - \exp(-17/5)/10 + \exp(-51/10)/10 + \sin(17/10)/10,$
 $\cos(171/100)/10 - \exp(-171/50)/10 + \exp(-513/100)/10 + \sin(171/100)/10,$
 $\cos(43/25)/10 - \exp(-86/25)/10 + \exp(-129/25)/10 + \sin(43/25)/10, \cos(173/100)/10 -$
 $\exp(-173/50)/10 + \exp(-519/100)/10 + \sin(173/100)/10, \cos(87/50)/10 - \exp(-$
 $87/25)/10 + \exp(-261/50)/10 + \sin(87/50)/10, \cos(7/4)/10 - \exp(-7/2)/10 + \exp(-$
 $21/4)/10 + \sin(7/4)/10, \cos(44/25)/10 - \exp(-88/25)/10 + \exp(-132/25)/10 +$
 $\sin(44/25)/10, \cos(177/100)/10 - \exp(-177/50)/10 + \exp(-531/100)/10 +$
 $\sin(177/100)/10, \cos(89/50)/10 - \exp(-89/25)/10 + \exp(-267/50)/10 + \sin(89/50)/10,$
 $\cos(179/100)/10 - \exp(-179/50)/10 + \exp(-537/100)/10 + \sin(179/100)/10, \cos(9/5)/10$
 $- \exp(-18/5)/10 + \exp(-27/5)/10 + \sin(9/5)/10, \cos(181/100)/10 - \exp(-181/50)/10 +$
 $\exp(-543/100)/10 + \sin(181/100)/10, \cos(91/50)/10 - \exp(-91/25)/10 + \exp(-$
 $273/50)/10 + \sin(91/50)/10, \cos(183/100)/10 - \exp(-183/50)/10 + \exp(-549/100)/10 +$
 $\sin(183/100)/10, \cos(46/25)/10 - \exp(-92/25)/10 + \exp(-138/25)/10 + \sin(46/25)/10,$
 $\cos(37/20)/10 - \exp(-37/10)/10 + \exp(-111/20)/10 + \sin(37/20)/10, \cos(93/50)/10 -$
 $\exp(-93/25)/10 + \exp(-279/50)/10 + \sin(93/50)/10, \cos(187/100)/10 - \exp(-187/50)/10$
 $+ \exp(-561/100)/10 + \sin(187/100)/10, \cos(47/25)/10 - \exp(-94/25)/10 + \exp(-$
 $141/25)/10 + \sin(47/25)/10, \cos(189/100)/10 - \exp(-189/50)/10 + \exp(-567/100)/10 +$
 $\sin(189/100)/10, \cos(19/10)/10 - \exp(-19/5)/10 + \exp(-57/10)/10 + \sin(19/10)/10,$
 $\cos(191/100)/10 - \exp(-191/50)/10 + \exp(-573/100)/10 + \sin(191/100)/10,$
 $\cos(48/25)/10 - \exp(-96/25)/10 + \exp(-144/25)/10 + \sin(48/25)/10, \cos(193/100)/10 -$
 $\exp(-193/50)/10 + \exp(-579/100)/10 + \sin(193/100)/10, \cos(97/50)/10 - \exp(-$
 $97/25)/10 + \exp(-291/50)/10 + \sin(97/50)/10, \cos(39/20)/10 - \exp(-39/10)/10 + \exp(-$
 $117/20)/10 + \sin(39/20)/10, \cos(49/25)/10 - \exp(-98/25)/10 + \exp(-147/25)/10 +$
 $\sin(49/25)/10, \cos(197/100)/10 - \exp(-197/50)/10 + \exp(-591/100)/10 +$
 $\sin(197/100)/10, \cos(99/50)/10 - \exp(-99/25)/10 + \exp(-297/50)/10 + \sin(99/50)/10,$
 $\cos(199/100)/10 - \exp(-199/50)/10 + \exp(-597/100)/10 + \sin(199/100)/10, \cos(2)/10 -$
 $\exp(-4)/10 + \exp(-6)/10 + \sin(2)/10, \cos(201/100)/10 - \exp(-201/50)/10 + \exp(-$
 $603/100)/10 + \sin(201/100)/10, \cos(101/50)/10 - \exp(-101/25)/10 + \exp(-303/50)/10 +$
 $\sin(101/50)/10, \cos(203/100)/10 - \exp(-203/50)/10 + \exp(-609/100)/10 +$
 $\sin(203/100)/10, \cos(51/25)/10 - \exp(-102/25)/10 + \exp(-153/25)/10 + \sin(51/25)/10,$
 $\cos(41/20)/10 - \exp(-41/10)/10 + \exp(-123/20)/10 + \sin(41/20)/10, \cos(103/50)/10 -$
 $\exp(-103/25)/10 + \exp(-309/50)/10 + \sin(103/50)/10, \cos(207/100)/10 - \exp(-$
 $207/50)/10 + \exp(-621/100)/10 + \sin(207/100)/10, \cos(52/25)/10 - \exp(-104/25)/10 +$
 $\exp(-156/25)/10 + \sin(52/25)/10, \cos(209/100)/10 - \exp(-209/50)/10 + \exp(-$
 $627/100)/10 + \sin(209/100)/10, \cos(21/10)/10 - \exp(-21/5)/10 + \exp(-63/10)/10 +$
 $\sin(21/10)/10, \cos(211/100)/10 - \exp(-211/50)/10 + \exp(-633/100)/10 +$
 $\sin(211/100)/10, \cos(53/25)/10 - \exp(-106/25)/10 + \exp(-159/25)/10 + \sin(53/25)/10,$
 $\cos(213/100)/10 - \exp(-213/50)/10 + \exp(-639/100)/10 + \sin(213/100)/10,$
 $\cos(107/50)/10 - \exp(-107/25)/10 + \exp(-321/50)/10 + \sin(107/50)/10, \cos(43/20)/10$
 $- \exp(-43/10)/10 + \exp(-129/20)/10 + \sin(43/20)/10, \cos(54/25)/10 - \exp(-108/25)/10$
 $+ \exp(-162/25)/10 + \sin(54/25)/10, \cos(217/100)/10 - \exp(-217/50)/10 + \exp(-$
 $651/100)/10 + \sin(217/100)/10, \cos(109/50)/10 - \exp(-109/25)/10 + \exp(-327/50)/10 +$
 $\sin(109/50)/10, \cos(219/100)/10 - \exp(-219/50)/10 + \exp(-657/100)/10 +$
 $\sin(219/100)/10, \cos(11/5)/10 - \exp(-22/5)/10 + \exp(-33/5)/10 + \sin(11/5)/10,$

$\cos(221/100)/10 - \exp(-221/50)/10 + \exp(-663/100)/10 + \sin(221/100)/10,$
 $\cos(111/50)/10 - \exp(-111/25)/10 + \exp(-333/50)/10 + \sin(111/50)/10,$
 $\cos(223/100)/10 - \exp(-223/50)/10 + \exp(-669/100)/10 + \sin(223/100)/10,$
 $\cos(56/25)/10 - \exp(-112/25)/10 + \exp(-168/25)/10 + \sin(56/25)/10, \cos(9/4)/10 -$
 $\exp(-9/2)/10 + \exp(-27/4)/10 + \sin(9/4)/10, \cos(113/50)/10 - \exp(-113/25)/10 +$
 $\exp(-339/50)/10 + \sin(113/50)/10, \cos(227/100)/10 - \exp(-227/50)/10 + \exp(-$
 $681/100)/10 + \sin(227/100)/10, \cos(57/25)/10 - \exp(-114/25)/10 + \exp(-171/25)/10 +$
 $\sin(57/25)/10, \cos(229/100)/10 - \exp(-229/50)/10 + \exp(-687/100)/10 +$
 $\sin(229/100)/10, \cos(23/10)/10 - \exp(-23/5)/10 + \exp(-69/10)/10 + \sin(23/10)/10,$
 $\cos(231/100)/10 - \exp(-231/50)/10 + \exp(-693/100)/10 + \sin(231/100)/10,$
 $\cos(58/25)/10 - \exp(-116/25)/10 + \exp(-174/25)/10 + \sin(58/25)/10, \cos(233/100)/10$
 $- \exp(-233/50)/10 + \exp(-699/100)/10 + \sin(233/100)/10, \cos(117/50)/10 - \exp(-$
 $117/25)/10 + \exp(-351/50)/10 + \sin(117/50)/10, \cos(47/20)/10 - \exp(-47/10)/10 +$
 $\exp(-141/20)/10 + \sin(47/20)/10, \cos(59/25)/10 - \exp(-118/25)/10 + \exp(-177/25)/10$
 $+ \sin(59/25)/10, \cos(237/100)/10 - \exp(-237/50)/10 + \exp(-711/100)/10 +$
 $\sin(237/100)/10, \cos(119/50)/10 - \exp(-119/25)/10 + \exp(-357/50)/10 +$
 $\sin(119/50)/10, \cos(239/100)/10 - \exp(-239/50)/10 + \exp(-717/100)/10 +$
 $\sin(239/100)/10, \cos(12/5)/10 - \exp(-24/5)/10 + \exp(-36/5)/10 + \sin(12/5)/10,$
 $\cos(241/100)/10 - \exp(-241/50)/10 + \exp(-723/100)/10 + \sin(241/100)/10,$
 $\cos(121/50)/10 - \exp(-121/25)/10 + \exp(-363/50)/10 + \sin(121/50)/10,$
 $\cos(243/100)/10 - \exp(-243/50)/10 + \exp(-729/100)/10 + \sin(243/100)/10,$
 $\cos(61/25)/10 - \exp(-122/25)/10 + \exp(-183/25)/10 + \sin(61/25)/10, \cos(49/20)/10 -$
 $\exp(-49/10)/10 + \exp(-147/20)/10 + \sin(49/20)/10, \cos(123/50)/10 - \exp(-123/25)/10$
 $+ \exp(-369/50)/10 + \sin(123/50)/10, \cos(247/100)/10 - \exp(-247/50)/10 + \exp(-$
 $741/100)/10 + \sin(247/100)/10, \cos(62/25)/10 - \exp(-124/25)/10 + \exp(-186/25)/10 +$
 $\sin(62/25)/10, \cos(249/100)/10 - \exp(-249/50)/10 + \exp(-747/100)/10 +$
 $\sin(249/100)/10, \cos(5/2)/10 - \exp(-5)/10 + \exp(-15/2)/10 + \sin(5/2)/10,$
 $\cos(251/100)/10 - \exp(-251/50)/10 + \exp(-753/100)/10 + \sin(251/100)/10,$
 $\cos(63/25)/10 - \exp(-126/25)/10 + \exp(-189/25)/10 + \sin(63/25)/10, \cos(253/100)/10$
 $- \exp(-253/50)/10 + \exp(-759/100)/10 + \sin(253/100)/10, \cos(127/50)/10 - \exp(-$
 $127/25)/10 + \exp(-381/50)/10 + \sin(127/50)/10, \cos(51/20)/10 - \exp(-51/10)/10 +$
 $\exp(-153/20)/10 + \sin(51/20)/10, \cos(64/25)/10 - \exp(-128/25)/10 + \exp(-192/25)/10$
 $+ \sin(64/25)/10, \cos(257/100)/10 - \exp(-257/50)/10 + \exp(-771/100)/10 +$
 $\sin(257/100)/10, \cos(129/50)/10 - \exp(-129/25)/10 + \exp(-387/50)/10 +$
 $\sin(129/50)/10, \cos(259/100)/10 - \exp(-259/50)/10 + \exp(-777/100)/10 +$
 $\sin(259/100)/10, \cos(13/5)/10 - \exp(-26/5)/10 + \exp(-39/5)/10 + \sin(13/5)/10,$
 $\cos(261/100)/10 - \exp(-261/50)/10 + \exp(-783/100)/10 + \sin(261/100)/10,$
 $\cos(131/50)/10 - \exp(-131/25)/10 + \exp(-393/50)/10 + \sin(131/50)/10,$
 $\cos(263/100)/10 - \exp(-263/50)/10 + \exp(-789/100)/10 + \sin(263/100)/10,$
 $\cos(66/25)/10 - \exp(-132/25)/10 + \exp(-198/25)/10 + \sin(66/25)/10, \cos(53/20)/10 -$
 $\exp(-53/10)/10 + \exp(-159/20)/10 + \sin(53/20)/10, \cos(133/50)/10 - \exp(-133/25)/10$
 $+ \exp(-399/50)/10 + \sin(133/50)/10, \cos(267/100)/10 - \exp(-267/50)/10 + \exp(-$
 $801/100)/10 + \sin(267/100)/10, \cos(67/25)/10 - \exp(-134/25)/10 + \exp(-201/25)/10 +$
 $\sin(67/25)/10, \cos(269/100)/10 - \exp(-269/50)/10 + \exp(-807/100)/10 +$
 $\sin(269/100)/10, \cos(27/10)/10 - \exp(-27/5)/10 + \exp(-81/10)/10 + \sin(27/10)/10,$
 $\cos(271/100)/10 - \exp(-271/50)/10 + \exp(-813/100)/10 + \sin(271/100)/10,$
 $\cos(68/25)/10 - \exp(-136/25)/10 + \exp(-204/25)/10 + \sin(68/25)/10, \cos(273/100)/10$
 $- \exp(-273/50)/10 + \exp(-819/100)/10 + \sin(273/100)/10, \cos(137/50)/10 - \exp(-$
 $137/25)/10 + \exp(-411/50)/10 + \sin(137/50)/10, \cos(11/4)/10 - \exp(-11/2)/10 + \exp(-$
 $33/4)/10 + \sin(11/4)/10, \cos(69/25)/10 - \exp(-138/25)/10 + \exp(-207/25)/10 +$
 $\sin(69/25)/10, \cos(277/100)/10 - \exp(-277/50)/10 + \exp(-831/100)/10 +$
 $\sin(277/100)/10, \cos(139/50)/10 - \exp(-139/25)/10 + \exp(-417/50)/10 +$
 $\sin(139/50)/10, \cos(279/100)/10 - \exp(-279/50)/10 + \exp(-837/100)/10 +$
 $\sin(279/100)/10, \cos(14/5)/10 - \exp(-28/5)/10 + \exp(-42/5)/10 + \sin(14/5)/10,$
 $\cos(281/100)/10 - \exp(-281/50)/10 + \exp(-843/100)/10 + \sin(281/100)/10,$

$\cos(141/50)/10 - \exp(-141/25)/10 + \exp(-423/50)/10 + \sin(141/50)/10,$
 $\cos(283/100)/10 - \exp(-283/50)/10 + \exp(-849/100)/10 + \sin(283/100)/10,$
 $\cos(71/25)/10 - \exp(-142/25)/10 + \exp(-213/25)/10 + \sin(71/25)/10, \cos(57/20)/10 -$
 $\exp(-57/10)/10 + \exp(-171/20)/10 + \sin(57/20)/10, \cos(143/50)/10 - \exp(-143/25)/10$
 $+ \exp(-429/50)/10 + \sin(143/50)/10, \cos(287/100)/10 - \exp(-287/50)/10 + \exp(-$
 $861/100)/10 + \sin(287/100)/10, \cos(72/25)/10 - \exp(-144/25)/10 + \exp(-216/25)/10 +$
 $\sin(72/25)/10, \cos(289/100)/10 - \exp(-289/50)/10 + \exp(-867/100)/10 +$
 $\sin(289/100)/10, \cos(29/10)/10 - \exp(-29/5)/10 + \exp(-87/10)/10 + \sin(29/10)/10,$
 $\cos(291/100)/10 - \exp(-291/50)/10 + \exp(-873/100)/10 + \sin(291/100)/10,$
 $\cos(73/25)/10 - \exp(-146/25)/10 + \exp(-219/25)/10 + \sin(73/25)/10, \cos(293/100)/10$
 $- \exp(-293/50)/10 + \exp(-879/100)/10 + \sin(293/100)/10, \cos(147/50)/10 - \exp(-$
 $147/25)/10 + \exp(-441/50)/10 + \sin(147/50)/10, \cos(59/20)/10 - \exp(-59/10)/10 +$
 $\exp(-177/20)/10 + \sin(59/20)/10, \cos(74/25)/10 - \exp(-148/25)/10 + \exp(-222/25)/10$
 $+ \sin(74/25)/10, \cos(297/100)/10 - \exp(-297/50)/10 + \exp(-891/100)/10 +$
 $\sin(297/100)/10, \cos(149/50)/10 - \exp(-149/25)/10 + \exp(-447/50)/10 +$
 $\sin(149/50)/10, \cos(299/100)/10 - \exp(-299/50)/10 + \exp(-897/100)/10 +$
 $\sin(299/100)/10, \cos(3)/10 - \exp(-6)/10 + \exp(-9)/10 + \sin(3)/10, \cos(301/100)/10 -$
 $\exp(-301/50)/10 + \exp(-903/100)/10 + \sin(301/100)/10, \cos(151/50)/10 - \exp(-$
 $151/25)/10 + \exp(-453/50)/10 + \sin(151/50)/10, \cos(303/100)/10 - \exp(-303/50)/10 +$
 $\exp(-909/100)/10 + \sin(303/100)/10, \cos(76/25)/10 - \exp(-152/25)/10 + \exp(-$
 $228/25)/10 + \sin(76/25)/10, \cos(61/20)/10 - \exp(-61/10)/10 + \exp(-183/20)/10 +$
 $\sin(61/20)/10, \cos(153/50)/10 - \exp(-153/25)/10 + \exp(-459/50)/10 + \sin(153/50)/10,$
 $\cos(307/100)/10 - \exp(-307/50)/10 + \exp(-921/100)/10 + \sin(307/100)/10,$
 $\cos(77/25)/10 - \exp(-154/25)/10 + \exp(-231/25)/10 + \sin(77/25)/10, \cos(309/100)/10$
 $- \exp(-309/50)/10 + \exp(-927/100)/10 + \sin(309/100)/10, \cos(31/10)/10 - \exp(-$
 $31/5)/10 + \exp(-93/10)/10 + \sin(31/10)/10, \cos(311/100)/10 - \exp(-311/50)/10 +$
 $\exp(-933/100)/10 + \sin(311/100)/10, \cos(78/25)/10 - \exp(-156/25)/10 + \exp(-$
 $234/25)/10 + \sin(78/25)/10, \cos(313/100)/10 - \exp(-313/50)/10 + \exp(-939/100)/10 +$
 $\sin(313/100)/10, \cos(157/50)/10 - \exp(-157/25)/10 + \exp(-471/50)/10 +$
 $\sin(157/50)/10, \cos(63/20)/10 - \exp(-63/10)/10 + \exp(-189/20)/10 + \sin(63/20)/10,$
 $\cos(79/25)/10 - \exp(-158/25)/10 + \exp(-237/25)/10 + \sin(79/25)/10, \cos(317/100)/10$
 $- \exp(-317/50)/10 + \exp(-951/100)/10 + \sin(317/100)/10, \cos(159/50)/10 - \exp(-$
 $159/25)/10 + \exp(-477/50)/10 + \sin(159/50)/10, \cos(319/100)/10 - \exp(-319/50)/10 +$
 $\exp(-957/100)/10 + \sin(319/100)/10, \cos(16/5)/10 - \exp(-32/5)/10 + \exp(-48/5)/10 +$
 $\sin(16/5)/10, \cos(321/100)/10 - \exp(-321/50)/10 + \exp(-963/100)/10 +$
 $\sin(321/100)/10, \cos(161/50)/10 - \exp(-161/25)/10 + \exp(-483/50)/10 +$
 $\sin(161/50)/10, \cos(323/100)/10 - \exp(-323/50)/10 + \exp(-969/100)/10 +$
 $\sin(323/100)/10, \cos(81/25)/10 - \exp(-162/25)/10 + \exp(-243/25)/10 + \sin(81/25)/10,$
 $\cos(13/4)/10 - \exp(-13/2)/10 + \exp(-39/4)/10 + \sin(13/4)/10, \cos(163/50)/10 - \exp(-$
 $163/25)/10 + \exp(-489/50)/10 + \sin(163/50)/10, \cos(327/100)/10 - \exp(-327/50)/10 +$
 $\exp(-981/100)/10 + \sin(327/100)/10, \cos(82/25)/10 - \exp(-164/25)/10 + \exp(-$
 $246/25)/10 + \sin(82/25)/10, \cos(329/100)/10 - \exp(-329/50)/10 + \exp(-987/100)/10 +$
 $\sin(329/100)/10, \cos(33/10)/10 - \exp(-33/5)/10 + \exp(-99/10)/10 + \sin(33/10)/10,$
 $\cos(331/100)/10 - \exp(-331/50)/10 + \exp(-993/100)/10 + \sin(331/100)/10,$
 $\cos(83/25)/10 - \exp(-166/25)/10 + \exp(-249/25)/10 + \sin(83/25)/10, \cos(333/100)/10$
 $- \exp(-333/50)/10 + \exp(-999/100)/10 + \sin(333/100)/10, \cos(167/50)/10 - \exp(-$
 $167/25)/10 + \exp(-501/50)/10 + \sin(167/50)/10, \cos(67/20)/10 - \exp(-67/10)/10 +$
 $\exp(-201/20)/10 + \sin(67/20)/10, \cos(84/25)/10 - \exp(-168/25)/10 + \exp(-252/25)/10$
 $+ \sin(84/25)/10, \cos(337/100)/10 - \exp(-337/50)/10 + \exp(-1011/100)/10 +$
 $\sin(337/100)/10, \cos(169/50)/10 - \exp(-169/25)/10 + \exp(-507/50)/10 +$
 $\sin(169/50)/10, \cos(339/100)/10 - \exp(-339/50)/10 + \exp(-1017/100)/10 +$
 $\sin(339/100)/10, \cos(17/5)/10 - \exp(-34/5)/10 + \exp(-51/5)/10 + \sin(17/5)/10,$
 $\cos(341/100)/10 - \exp(-341/50)/10 + \exp(-1023/100)/10 + \sin(341/100)/10,$
 $\cos(171/50)/10 - \exp(-171/25)/10 + \exp(-513/50)/10 + \sin(171/50)/10,$
 $\cos(343/100)/10 - \exp(-343/50)/10 + \exp(-1029/100)/10 + \sin(343/100)/10,$

$\cos(86/25)/10 - \exp(-172/25)/10 + \exp(-258/25)/10 + \sin(86/25)/10, \cos(69/20)/10 - \exp(-69/10)/10 + \exp(-207/20)/10 + \sin(69/20)/10, \cos(173/50)/10 - \exp(-173/25)/10 + \exp(-519/50)/10 + \sin(173/50)/10, \cos(347/100)/10 - \exp(-347/50)/10 + \exp(-1041/100)/10 + \sin(347/100)/10, \cos(87/25)/10 - \exp(-174/25)/10 + \exp(-261/25)/10 + \sin(87/25)/10, \cos(349/100)/10 - \exp(-349/50)/10 + \exp(-1047/100)/10 + \sin(349/100)/10, \cos(7/2)/10 - \exp(-7)/10 + \exp(-21/2)/10 + \sin(7/2)/10, \cos(351/100)/10 - \exp(-351/50)/10 + \exp(-1053/100)/10 + \sin(351/100)/10, \cos(88/25)/10 - \exp(-176/25)/10 + \exp(-264/25)/10 + \sin(88/25)/10, \cos(353/100)/10 - \exp(-353/50)/10 + \exp(-1059/100)/10 + \sin(353/100)/10, \cos(177/50)/10 - \exp(-177/25)/10 + \exp(-531/50)/10 + \sin(177/50)/10, \cos(71/20)/10 - \exp(-71/10)/10 + \exp(-213/20)/10 + \sin(71/20)/10, \cos(89/25)/10 - \exp(-178/25)/10 + \exp(-267/25)/10 + \sin(89/25)/10, \cos(357/100)/10 - \exp(-357/50)/10 + \exp(-1071/100)/10 + \sin(357/100)/10, \cos(179/50)/10 - \exp(-179/25)/10 + \exp(-537/50)/10 + \sin(179/50)/10, \cos(359/100)/10 - \exp(-359/50)/10 + \exp(-1077/100)/10 + \sin(359/100)/10, \cos(18/5)/10 - \exp(-36/5)/10 + \exp(-54/5)/10 + \sin(18/5)/10, \cos(361/100)/10 - \exp(-361/50)/10 + \exp(-1083/100)/10 + \sin(361/100)/10, \cos(181/50)/10 - \exp(-181/25)/10 + \exp(-543/50)/10 + \sin(181/50)/10, \cos(363/100)/10 - \exp(-363/50)/10 + \exp(-1089/100)/10 + \sin(363/100)/10, \cos(91/25)/10 - \exp(-182/25)/10 + \exp(-273/25)/10 + \sin(91/25)/10, \cos(73/20)/10 - \exp(-73/10)/10 + \exp(-219/20)/10 + \sin(73/20)/10, \cos(183/50)/10 - \exp(-183/25)/10 + \exp(-549/50)/10 + \sin(183/50)/10, \cos(367/100)/10 - \exp(-367/50)/10 + \exp(-1101/100)/10 + \sin(367/100)/10, \cos(92/25)/10 - \exp(-184/25)/10 + \exp(-276/25)/10 + \sin(92/25)/10, \cos(369/100)/10 - \exp(-369/50)/10 + \exp(-1107/100)/10 + \sin(369/100)/10, \cos(37/10)/10 - \exp(-37/5)/10 + \exp(-111/10)/10 + \sin(37/10)/10, \cos(371/100)/10 - \exp(-371/50)/10 + \exp(-1113/100)/10 + \sin(371/100)/10, \cos(93/25)/10 - \exp(-186/25)/10 + \exp(-279/25)/10 + \sin(93/25)/10, \cos(373/100)/10 - \exp(-373/50)/10 + \exp(-1119/100)/10 + \sin(373/100)/10, \cos(187/50)/10 - \exp(-187/25)/10 + \exp(-561/50)/10 + \sin(187/50)/10, \cos(15/4)/10 - \exp(-15/2)/10 + \exp(-45/4)/10 + \sin(15/4)/10, \cos(94/25)/10 - \exp(-188/25)/10 + \exp(-282/25)/10 + \sin(94/25)/10, \cos(377/100)/10 - \exp(-377/50)/10 + \exp(-1131/100)/10 + \sin(377/100)/10, \cos(189/50)/10 - \exp(-189/25)/10 + \exp(-567/50)/10 + \sin(189/50)/10, \cos(379/100)/10 - \exp(-379/50)/10 + \exp(-1137/100)/10 + \sin(379/100)/10, \cos(19/5)/10 - \exp(-38/5)/10 + \exp(-57/5)/10 + \sin(19/5)/10, \cos(381/100)/10 - \exp(-381/50)/10 + \exp(-1143/100)/10 + \sin(381/100)/10, \cos(191/50)/10 - \exp(-191/25)/10 + \exp(-573/50)/10 + \sin(191/50)/10, \cos(383/100)/10 - \exp(-383/50)/10 + \exp(-1149/100)/10 + \sin(383/100)/10, \cos(96/25)/10 - \exp(-192/25)/10 + \exp(-288/25)/10 + \sin(96/25)/10, \cos(77/20)/10 - \exp(-77/10)/10 + \exp(-231/20)/10 + \sin(77/20)/10, \cos(193/50)/10 - \exp(-193/25)/10 + \exp(-579/50)/10 + \sin(193/50)/10, \cos(387/100)/10 - \exp(-387/50)/10 + \exp(-1161/100)/10 + \sin(387/100)/10, \cos(97/25)/10 - \exp(-194/25)/10 + \exp(-291/25)/10 + \sin(97/25)/10, \cos(389/100)/10 - \exp(-389/50)/10 + \exp(-1167/100)/10 + \sin(389/100)/10, \cos(39/10)/10 - \exp(-39/5)/10 + \exp(-117/10)/10 + \sin(39/10)/10, \cos(391/100)/10 - \exp(-391/50)/10 + \exp(-1173/100)/10 + \sin(391/100)/10, \cos(98/25)/10 - \exp(-196/25)/10 + \exp(-294/25)/10 + \sin(98/25)/10, \cos(393/100)/10 - \exp(-393/50)/10 + \exp(-1179/100)/10 + \sin(393/100)/10, \cos(197/50)/10 - \exp(-197/25)/10 + \exp(-591/50)/10 + \sin(197/50)/10, \cos(79/20)/10 - \exp(-79/10)/10 + \exp(-237/20)/10 + \sin(79/20)/10, \cos(99/25)/10 - \exp(-198/25)/10 + \exp(-297/25)/10 + \sin(99/25)/10, \cos(397/100)/10 - \exp(-397/50)/10 + \exp(-1191/100)/10 + \sin(397/100)/10, \cos(199/50)/10 - \exp(-199/25)/10 + \exp(-597/50)/10 + \sin(199/50)/10, \cos(399/100)/10 - \exp(-399/50)/10 + \exp(-1197/100)/10 + \sin(399/100)/10, \cos(4)/10 - \exp(-8)/10 + \exp(-12)/10 + \sin(4)/10, \cos(401/100)/10 - \exp(-401/50)/10 + \exp(-1203/100)/10 + \sin(401/100)/10, \cos(201/50)/10 - \exp(-201/25)/10 + \exp(-603/50)/10 + \sin(201/50)/10, \cos(403/100)/10 - \exp(-403/50)/10 + \exp(-1209/100)/10 + \sin(403/100)/10, \cos(101/25)/10 - \exp(-202/25)/10 + \exp(-303/25)/10 + \sin(101/25)/10, \cos(81/20)/10 - \exp(-81/10)/10 + \exp(-243/20)/10 +$

$\sin(81/20)/10, \cos(203/50)/10 - \exp(-203/25)/10 + \exp(-609/50)/10 + \sin(203/50)/10,$
 $\cos(407/100)/10 - \exp(-407/50)/10 + \exp(-1221/100)/10 + \sin(407/100)/10,$
 $\cos(102/25)/10 - \exp(-204/25)/10 + \exp(-306/25)/10 + \sin(102/25)/10,$
 $\cos(409/100)/10 - \exp(-409/50)/10 + \exp(-1227/100)/10 + \sin(409/100)/10,$
 $\cos(41/10)/10 - \exp(-41/5)/10 + \exp(-123/10)/10 + \sin(41/10)/10, \cos(411/100)/10 -$
 $\exp(-411/50)/10 + \exp(-1233/100)/10 + \sin(411/100)/10, \cos(103/25)/10 - \exp(-$
 $206/25)/10 + \exp(-309/25)/10 + \sin(103/25)/10, \cos(413/100)/10 - \exp(-413/50)/10 +$
 $\exp(-1239/100)/10 + \sin(413/100)/10, \cos(207/50)/10 - \exp(-207/25)/10 + \exp(-$
 $621/50)/10 + \sin(207/50)/10, \cos(83/20)/10 - \exp(-83/10)/10 + \exp(-249/20)/10 +$
 $\sin(83/20)/10, \cos(104/25)/10 - \exp(-208/25)/10 + \exp(-312/25)/10 + \sin(104/25)/10,$
 $\cos(417/100)/10 - \exp(-417/50)/10 + \exp(-1251/100)/10 + \sin(417/100)/10,$
 $\cos(209/50)/10 - \exp(-209/25)/10 + \exp(-627/50)/10 + \sin(209/50)/10,$
 $\cos(419/100)/10 - \exp(-419/50)/10 + \exp(-1257/100)/10 + \sin(419/100)/10,$
 $\cos(21/5)/10 - \exp(-42/5)/10 + \exp(-63/5)/10 + \sin(21/5)/10, \cos(421/100)/10 -$
 $\exp(-421/50)/10 + \exp(-1263/100)/10 + \sin(421/100)/10, \cos(211/50)/10 - \exp(-$
 $211/25)/10 + \exp(-633/50)/10 + \sin(211/50)/10, \cos(423/100)/10 - \exp(-423/50)/10 +$
 $\exp(-1269/100)/10 + \sin(423/100)/10, \cos(106/25)/10 - \exp(-212/25)/10 + \exp(-$
 $318/25)/10 + \sin(106/25)/10, \cos(17/4)/10 - \exp(-17/2)/10 + \exp(-51/4)/10 +$
 $\sin(17/4)/10, \cos(213/50)/10 - \exp(-213/25)/10 + \exp(-639/50)/10 + \sin(213/50)/10,$
 $\cos(427/100)/10 - \exp(-427/50)/10 + \exp(-1281/100)/10 + \sin(427/100)/10,$
 $\cos(107/25)/10 - \exp(-214/25)/10 + \exp(-321/25)/10 + \sin(107/25)/10,$
 $\cos(429/100)/10 - \exp(-429/50)/10 + \exp(-1287/100)/10 + \sin(429/100)/10,$
 $\cos(43/10)/10 - \exp(-43/5)/10 + \exp(-129/10)/10 + \sin(43/10)/10, \cos(431/100)/10 -$
 $\exp(-431/50)/10 + \exp(-1293/100)/10 + \sin(431/100)/10, \cos(108/25)/10 - \exp(-$
 $216/25)/10 + \exp(-324/25)/10 + \sin(108/25)/10, \cos(433/100)/10 - \exp(-433/50)/10 +$
 $\exp(-1299/100)/10 + \sin(433/100)/10, \cos(217/50)/10 - \exp(-217/25)/10 + \exp(-$
 $651/50)/10 + \sin(217/50)/10, \cos(87/20)/10 - \exp(-87/10)/10 + \exp(-261/20)/10 +$
 $\sin(87/20)/10, \cos(109/25)/10 - \exp(-218/25)/10 + \exp(-327/25)/10 + \sin(109/25)/10,$
 $\cos(437/100)/10 - \exp(-437/50)/10 + \exp(-1311/100)/10 + \sin(437/100)/10,$
 $\cos(219/50)/10 - \exp(-219/25)/10 + \exp(-657/50)/10 + \sin(219/50)/10,$
 $\cos(439/100)/10 - \exp(-439/50)/10 + \exp(-1317/100)/10 + \sin(439/100)/10,$
 $\cos(22/5)/10 - \exp(-44/5)/10 + \exp(-66/5)/10 + \sin(22/5)/10, \cos(441/100)/10 -$
 $\exp(-441/50)/10 + \exp(-1323/100)/10 + \sin(441/100)/10, \cos(221/50)/10 - \exp(-$
 $221/25)/10 + \exp(-663/50)/10 + \sin(221/50)/10, \cos(443/100)/10 - \exp(-443/50)/10 +$
 $\exp(-1329/100)/10 + \sin(443/100)/10, \cos(111/25)/10 - \exp(-222/25)/10 + \exp(-$
 $333/25)/10 + \sin(111/25)/10, \cos(89/20)/10 - \exp(-89/10)/10 + \exp(-267/20)/10 +$
 $\sin(89/20)/10, \cos(223/50)/10 - \exp(-223/25)/10 + \exp(-669/50)/10 + \sin(223/50)/10,$
 $\cos(447/100)/10 - \exp(-447/50)/10 + \exp(-1341/100)/10 + \sin(447/100)/10,$
 $\cos(112/25)/10 - \exp(-224/25)/10 + \exp(-336/25)/10 + \sin(112/25)/10,$
 $\cos(449/100)/10 - \exp(-449/50)/10 + \exp(-1347/100)/10 + \sin(449/100)/10,$
 $\cos(9/2)/10 - \exp(-9)/10 + \exp(-27/2)/10 + \sin(9/2)/10, \cos(451/100)/10 - \exp(-$
 $451/50)/10 + \exp(-1353/100)/10 + \sin(451/100)/10, \cos(113/25)/10 - \exp(-226/25)/10$
 $+ \exp(-339/25)/10 + \sin(113/25)/10, \cos(453/100)/10 - \exp(-453/50)/10 + \exp(-$
 $1359/100)/10 + \sin(453/100)/10, \cos(227/50)/10 - \exp(-227/25)/10 + \exp(-681/50)/10$
 $+ \sin(227/50)/10, \cos(91/20)/10 - \exp(-91/10)/10 + \exp(-273/20)/10 + \sin(91/20)/10,$
 $\cos(114/25)/10 - \exp(-228/25)/10 + \exp(-342/25)/10 + \sin(114/25)/10,$
 $\cos(457/100)/10 - \exp(-457/50)/10 + \exp(-1371/100)/10 + \sin(457/100)/10,$
 $\cos(229/50)/10 - \exp(-229/25)/10 + \exp(-687/50)/10 + \sin(229/50)/10,$
 $\cos(459/100)/10 - \exp(-459/50)/10 + \exp(-1377/100)/10 + \sin(459/100)/10,$
 $\cos(23/5)/10 - \exp(-46/5)/10 + \exp(-69/5)/10 + \sin(23/5)/10, \cos(461/100)/10 -$
 $\exp(-461/50)/10 + \exp(-1383/100)/10 + \sin(461/100)/10, \cos(231/50)/10 - \exp(-$
 $231/25)/10 + \exp(-693/50)/10 + \sin(231/50)/10, \cos(463/100)/10 - \exp(-463/50)/10 +$
 $\exp(-1389/100)/10 + \sin(463/100)/10, \cos(116/25)/10 - \exp(-232/25)/10 + \exp(-$
 $348/25)/10 + \sin(116/25)/10, \cos(93/20)/10 - \exp(-93/10)/10 + \exp(-279/20)/10 +$
 $\sin(93/20)/10, \cos(233/50)/10 - \exp(-233/25)/10 + \exp(-699/50)/10 + \sin(233/50)/10,$

$\cos(467/100)/10 - \exp(-467/50)/10 + \exp(-1401/100)/10 + \sin(467/100)/10,$
 $\cos(117/25)/10 - \exp(-234/25)/10 + \exp(-351/25)/10 + \sin(117/25)/10,$
 $\cos(469/100)/10 - \exp(-469/50)/10 + \exp(-1407/100)/10 + \sin(469/100)/10,$
 $\cos(47/10)/10 - \exp(-47/5)/10 + \exp(-141/10)/10 + \sin(47/10)/10, \cos(471/100)/10 -$
 $\exp(-471/50)/10 + \exp(-1413/100)/10 + \sin(471/100)/10, \cos(118/25)/10 - \exp(-$
 $236/25)/10 + \exp(-354/25)/10 + \sin(118/25)/10, \cos(473/100)/10 - \exp(-473/50)/10 +$
 $\exp(-1419/100)/10 + \sin(473/100)/10, \cos(237/50)/10 - \exp(-237/25)/10 + \exp(-$
 $711/50)/10 + \sin(237/50)/10, \cos(19/4)/10 - \exp(-19/2)/10 + \exp(-57/4)/10 +$
 $\sin(19/4)/10, \cos(119/25)/10 - \exp(-238/25)/10 + \exp(-357/25)/10 + \sin(119/25)/10,$
 $\cos(477/100)/10 - \exp(-477/50)/10 + \exp(-1431/100)/10 + \sin(477/100)/10,$
 $\cos(239/50)/10 - \exp(-239/25)/10 + \exp(-717/50)/10 + \sin(239/50)/10,$
 $\cos(479/100)/10 - \exp(-479/50)/10 + \exp(-1437/100)/10 + \sin(479/100)/10,$
 $\cos(24/5)/10 - \exp(-48/5)/10 + \exp(-72/5)/10 + \sin(24/5)/10, \cos(481/100)/10 -$
 $\exp(-481/50)/10 + \exp(-1443/100)/10 + \sin(481/100)/10, \cos(241/50)/10 - \exp(-$
 $241/25)/10 + \exp(-723/50)/10 + \sin(241/50)/10, \cos(483/100)/10 - \exp(-483/50)/10 +$
 $\exp(-1449/100)/10 + \sin(483/100)/10, \cos(121/25)/10 - \exp(-242/25)/10 + \exp(-$
 $363/25)/10 + \sin(121/25)/10, \cos(97/20)/10 - \exp(-97/10)/10 + \exp(-291/20)/10 +$
 $\sin(97/20)/10, \cos(243/50)/10 - \exp(-243/25)/10 + \exp(-729/50)/10 + \sin(243/50)/10,$
 $\cos(487/100)/10 - \exp(-487/50)/10 + \exp(-1461/100)/10 + \sin(487/100)/10,$
 $\cos(122/25)/10 - \exp(-244/25)/10 + \exp(-366/25)/10 + \sin(122/25)/10,$
 $\cos(489/100)/10 - \exp(-489/50)/10 + \exp(-1467/100)/10 + \sin(489/100)/10,$
 $\cos(49/10)/10 - \exp(-49/5)/10 + \exp(-147/10)/10 + \sin(49/10)/10, \cos(491/100)/10 -$
 $\exp(-491/50)/10 + \exp(-1473/100)/10 + \sin(491/100)/10, \cos(123/25)/10 - \exp(-$
 $246/25)/10 + \exp(-369/25)/10 + \sin(123/25)/10, \cos(493/100)/10 - \exp(-493/50)/10 +$
 $\exp(-1479/100)/10 + \sin(493/100)/10, \cos(247/50)/10 - \exp(-247/25)/10 + \exp(-$
 $741/50)/10 + \sin(247/50)/10, \cos(99/20)/10 - \exp(-99/10)/10 + \exp(-297/20)/10 +$
 $\sin(99/20)/10, \cos(124/25)/10 - \exp(-248/25)/10 + \exp(-372/25)/10 + \sin(124/25)/10,$
 $\cos(497/100)/10 - \exp(-497/50)/10 + \exp(-1491/100)/10 + \sin(497/100)/10,$
 $\cos(249/50)/10 - \exp(-249/25)/10 + \exp(-747/50)/10 + \sin(249/50)/10,$
 $\cos(499/100)/10 - \exp(-499/50)/10 + \exp(-1497/100)/10 + \sin(499/100)/10, \cos(5)/10$
 $- \exp(-10)/10 + \exp(-15)/10 + \sin(5)/10, \cos(501/100)/10 - \exp(-501/50)/10 + \exp(-$
 $1503/100)/10 + \sin(501/100)/10, \cos(251/50)/10 - \exp(-251/25)/10 + \exp(-753/50)/10$
 $+ \sin(251/50)/10, \cos(503/100)/10 - \exp(-503/50)/10 + \exp(-1509/100)/10 +$
 $\sin(503/100)/10, \cos(126/25)/10 - \exp(-252/25)/10 + \exp(-378/25)/10 +$
 $\sin(126/25)/10, \cos(101/20)/10 - \exp(-101/10)/10 + \exp(-303/20)/10 +$
 $\sin(101/20)/10, \cos(253/50)/10 - \exp(-253/25)/10 + \exp(-759/50)/10 +$
 $\sin(253/50)/10, \cos(507/100)/10 - \exp(-507/50)/10 + \exp(-1521/100)/10 +$
 $\sin(507/100)/10, \cos(127/25)/10 - \exp(-254/25)/10 + \exp(-381/25)/10 +$
 $\sin(127/25)/10, \cos(509/100)/10 - \exp(-509/50)/10 + \exp(-1527/100)/10 +$
 $\sin(509/100)/10, \cos(51/10)/10 - \exp(-51/5)/10 + \exp(-153/10)/10 + \sin(51/10)/10,$
 $\cos(511/100)/10 - \exp(-511/50)/10 + \exp(-1533/100)/10 + \sin(511/100)/10,$
 $\cos(128/25)/10 - \exp(-256/25)/10 + \exp(-384/25)/10 + \sin(128/25)/10,$
 $\cos(513/100)/10 - \exp(-513/50)/10 + \exp(-1539/100)/10 + \sin(513/100)/10,$
 $\cos(257/50)/10 - \exp(-257/25)/10 + \exp(-771/50)/10 + \sin(257/50)/10, \cos(103/20)/10$
 $- \exp(-103/10)/10 + \exp(-309/20)/10 + \sin(103/20)/10, \cos(129/25)/10 - \exp(-$
 $258/25)/10 + \exp(-387/25)/10 + \sin(129/25)/10, \cos(517/100)/10 - \exp(-517/50)/10 +$
 $\exp(-1551/100)/10 + \sin(517/100)/10, \cos(259/50)/10 - \exp(-259/25)/10 + \exp(-$
 $777/50)/10 + \sin(259/50)/10, \cos(519/100)/10 - \exp(-519/50)/10 + \exp(-1557/100)/10$
 $+ \sin(519/100)/10, \cos(26/5)/10 - \exp(-52/5)/10 + \exp(-78/5)/10 + \sin(26/5)/10,$
 $\cos(521/100)/10 - \exp(-521/50)/10 + \exp(-1563/100)/10 + \sin(521/100)/10,$
 $\cos(261/50)/10 - \exp(-261/25)/10 + \exp(-783/50)/10 + \sin(261/50)/10,$
 $\cos(523/100)/10 - \exp(-523/50)/10 + \exp(-1569/100)/10 + \sin(523/100)/10,$
 $\cos(131/25)/10 - \exp(-262/25)/10 + \exp(-393/25)/10 + \sin(131/25)/10, \cos(21/4)/10 -$
 $\exp(-21/2)/10 + \exp(-63/4)/10 + \sin(21/4)/10, \cos(263/50)/10 - \exp(-263/25)/10 +$
 $\exp(-789/50)/10 + \sin(263/50)/10, \cos(527/100)/10 - \exp(-527/50)/10 + \exp(-$

$1581/100)/10 + \sin(527/100)/10, \cos(132/25)/10 - \exp(-264/25)/10 + \exp(-396/25)/10$
 $+ \sin(132/25)/10, \cos(529/100)/10 - \exp(-529/50)/10 + \exp(-1587/100)/10 +$
 $\sin(529/100)/10, \cos(53/10)/10 - \exp(-53/5)/10 + \exp(-159/10)/10 + \sin(53/10)/10,$
 $\cos(531/100)/10 - \exp(-531/50)/10 + \exp(-1593/100)/10 + \sin(531/100)/10,$
 $\cos(133/25)/10 - \exp(-266/25)/10 + \exp(-399/25)/10 + \sin(133/25)/10,$
 $\cos(533/100)/10 - \exp(-533/50)/10 + \exp(-1599/100)/10 + \sin(533/100)/10,$
 $\cos(267/50)/10 - \exp(-267/25)/10 + \exp(-801/50)/10 + \sin(267/50)/10, \cos(107/20)/10$
 $- \exp(-107/10)/10 + \exp(-321/20)/10 + \sin(107/20)/10, \cos(134/25)/10 - \exp(-$
 $268/25)/10 + \exp(-402/25)/10 + \sin(134/25)/10, \cos(537/100)/10 - \exp(-537/50)/10 +$
 $\exp(-1611/100)/10 + \sin(537/100)/10, \cos(269/50)/10 - \exp(-269/25)/10 + \exp(-$
 $807/50)/10 + \sin(269/50)/10, \cos(539/100)/10 - \exp(-539/50)/10 + \exp(-1617/100)/10$
 $+ \sin(539/100)/10, \cos(27/5)/10 - \exp(-54/5)/10 + \exp(-81/5)/10 + \sin(27/5)/10,$
 $\cos(541/100)/10 - \exp(-541/50)/10 + \exp(-1623/100)/10 + \sin(541/100)/10,$
 $\cos(271/50)/10 - \exp(-271/25)/10 + \exp(-813/50)/10 + \sin(271/50)/10,$
 $\cos(543/100)/10 - \exp(-543/50)/10 + \exp(-1629/100)/10 + \sin(543/100)/10,$
 $\cos(136/25)/10 - \exp(-272/25)/10 + \exp(-408/25)/10 + \sin(136/25)/10, \cos(109/20)/10$
 $- \exp(-109/10)/10 + \exp(-327/20)/10 + \sin(109/20)/10, \cos(273/50)/10 - \exp(-$
 $273/25)/10 + \exp(-819/50)/10 + \sin(273/50)/10, \cos(547/100)/10 - \exp(-547/50)/10 +$
 $\exp(-1641/100)/10 + \sin(547/100)/10, \cos(137/25)/10 - \exp(-274/25)/10 + \exp(-$
 $411/25)/10 + \sin(137/25)/10, \cos(549/100)/10 - \exp(-549/50)/10 + \exp(-1647/100)/10$
 $+ \sin(549/100)/10, \cos(11/2)/10 - \exp(-11)/10 + \exp(-33/2)/10 + \sin(11/2)/10,$
 $\cos(551/100)/10 - \exp(-551/50)/10 + \exp(-1653/100)/10 + \sin(551/100)/10,$
 $\cos(138/25)/10 - \exp(-276/25)/10 + \exp(-414/25)/10 + \sin(138/25)/10,$
 $\cos(553/100)/10 - \exp(-553/50)/10 + \exp(-1659/100)/10 + \sin(553/100)/10,$
 $\cos(277/50)/10 - \exp(-277/25)/10 + \exp(-831/50)/10 + \sin(277/50)/10, \cos(111/20)/10$
 $- \exp(-111/10)/10 + \exp(-333/20)/10 + \sin(111/20)/10, \cos(139/25)/10 - \exp(-$
 $278/25)/10 + \exp(-417/25)/10 + \sin(139/25)/10, \cos(557/100)/10 - \exp(-557/50)/10 +$
 $\exp(-1671/100)/10 + \sin(557/100)/10, \cos(279/50)/10 - \exp(-279/25)/10 + \exp(-$
 $837/50)/10 + \sin(279/50)/10, \cos(559/100)/10 - \exp(-559/50)/10 + \exp(-1677/100)/10$
 $+ \sin(559/100)/10, \cos(28/5)/10 - \exp(-56/5)/10 + \exp(-84/5)/10 + \sin(28/5)/10,$
 $\cos(561/100)/10 - \exp(-561/50)/10 + \exp(-1683/100)/10 + \sin(561/100)/10,$
 $\cos(281/50)/10 - \exp(-281/25)/10 + \exp(-843/50)/10 + \sin(281/50)/10,$
 $\cos(563/100)/10 - \exp(-563/50)/10 + \exp(-1689/100)/10 + \sin(563/100)/10,$
 $\cos(141/25)/10 - \exp(-282/25)/10 + \exp(-423/25)/10 + \sin(141/25)/10, \cos(113/20)/10$
 $- \exp(-113/10)/10 + \exp(-339/20)/10 + \sin(113/20)/10, \cos(283/50)/10 - \exp(-$
 $283/25)/10 + \exp(-849/50)/10 + \sin(283/50)/10, \cos(567/100)/10 - \exp(-567/50)/10 +$
 $\exp(-1701/100)/10 + \sin(567/100)/10, \cos(142/25)/10 - \exp(-284/25)/10 + \exp(-$
 $426/25)/10 + \sin(142/25)/10, \cos(569/100)/10 - \exp(-569/50)/10 + \exp(-1707/100)/10$
 $+ \sin(569/100)/10, \cos(57/10)/10 - \exp(-57/5)/10 + \exp(-171/10)/10 + \sin(57/10)/10,$
 $\cos(571/100)/10 - \exp(-571/50)/10 + \exp(-1713/100)/10 + \sin(571/100)/10,$
 $\cos(143/25)/10 - \exp(-286/25)/10 + \exp(-429/25)/10 + \sin(143/25)/10,$
 $\cos(573/100)/10 - \exp(-573/50)/10 + \exp(-1719/100)/10 + \sin(573/100)/10,$
 $\cos(287/50)/10 - \exp(-287/25)/10 + \exp(-861/50)/10 + \sin(287/50)/10, \cos(23/4)/10 -$
 $\exp(-23/2)/10 + \exp(-69/4)/10 + \sin(23/4)/10, \cos(144/25)/10 - \exp(-288/25)/10 +$
 $\exp(-432/25)/10 + \sin(144/25)/10, \cos(577/100)/10 - \exp(-577/50)/10 + \exp(-$
 $1731/100)/10 + \sin(577/100)/10, \cos(289/50)/10 - \exp(-289/25)/10 + \exp(-867/50)/10$
 $+ \sin(289/50)/10, \cos(579/100)/10 - \exp(-579/50)/10 + \exp(-1737/100)/10 +$
 $\sin(579/100)/10, \cos(29/5)/10 - \exp(-58/5)/10 + \exp(-87/5)/10 + \sin(29/5)/10,$
 $\cos(581/100)/10 - \exp(-581/50)/10 + \exp(-1743/100)/10 + \sin(581/100)/10,$
 $\cos(291/50)/10 - \exp(-291/25)/10 + \exp(-873/50)/10 + \sin(291/50)/10,$
 $\cos(583/100)/10 - \exp(-583/50)/10 + \exp(-1749/100)/10 + \sin(583/100)/10,$
 $\cos(146/25)/10 - \exp(-292/25)/10 + \exp(-438/25)/10 + \sin(146/25)/10, \cos(117/20)/10$
 $- \exp(-117/10)/10 + \exp(-351/20)/10 + \sin(117/20)/10, \cos(293/50)/10 - \exp(-$
 $293/25)/10 + \exp(-879/50)/10 + \sin(293/50)/10, \cos(587/100)/10 - \exp(-587/50)/10 +$
 $\exp(-1761/100)/10 + \sin(587/100)/10, \cos(147/25)/10 - \exp(-294/25)/10 + \exp(-$

$441/25)/10 + \sin(147/25)/10, \cos(589/100)/10 - \exp(-589/50)/10 + \exp(-1767/100)/10$
 $+ \sin(589/100)/10, \cos(59/10)/10 - \exp(-59/5)/10 + \exp(-177/10)/10 + \sin(59/10)/10,$
 $\cos(591/100)/10 - \exp(-591/50)/10 + \exp(-1773/100)/10 + \sin(591/100)/10,$
 $\cos(148/25)/10 - \exp(-296/25)/10 + \exp(-444/25)/10 + \sin(148/25)/10,$
 $\cos(593/100)/10 - \exp(-593/50)/10 + \exp(-1779/100)/10 + \sin(593/100)/10,$
 $\cos(297/50)/10 - \exp(-297/25)/10 + \exp(-891/50)/10 + \sin(297/50)/10, \cos(119/20)/10$
 $- \exp(-119/10)/10 + \exp(-357/20)/10 + \sin(119/20)/10, \cos(149/25)/10 - \exp(-$
 $298/25)/10 + \exp(-447/25)/10 + \sin(149/25)/10, \cos(597/100)/10 - \exp(-597/50)/10 +$
 $\exp(-1791/100)/10 + \sin(597/100)/10, \cos(299/50)/10 - \exp(-299/25)/10 + \exp(-$
 $897/50)/10 + \sin(299/50)/10, \cos(599/100)/10 - \exp(-599/50)/10 + \exp(-1797/100)/10$
 $+ \sin(599/100)/10, \cos(6)/10 - \exp(-12)/10 + \exp(-18)/10 + \sin(6)/10,$
 $\cos(601/100)/10 - \exp(-601/50)/10 + \exp(-1803/100)/10 + \sin(601/100)/10,$
 $\cos(301/50)/10 - \exp(-301/25)/10 + \exp(-903/50)/10 + \sin(301/50)/10,$
 $\cos(603/100)/10 - \exp(-603/50)/10 + \exp(-1809/100)/10 + \sin(603/100)/10,$
 $\cos(151/25)/10 - \exp(-302/25)/10 + \exp(-453/25)/10 + \sin(151/25)/10, \cos(121/20)/10$
 $- \exp(-121/10)/10 + \exp(-363/20)/10 + \sin(121/20)/10, \cos(303/50)/10 - \exp(-$
 $303/25)/10 + \exp(-909/50)/10 + \sin(303/50)/10, \cos(607/100)/10 - \exp(-607/50)/10 +$
 $\exp(-1821/100)/10 + \sin(607/100)/10, \cos(152/25)/10 - \exp(-304/25)/10 + \exp(-$
 $456/25)/10 + \sin(152/25)/10, \cos(609/100)/10 - \exp(-609/50)/10 + \exp(-1827/100)/10$
 $+ \sin(609/100)/10, \cos(61/10)/10 - \exp(-61/5)/10 + \exp(-183/10)/10 + \sin(61/10)/10,$
 $\cos(611/100)/10 - \exp(-611/50)/10 + \exp(-1833/100)/10 + \sin(611/100)/10,$
 $\cos(153/25)/10 - \exp(-306/25)/10 + \exp(-459/25)/10 + \sin(153/25)/10,$
 $\cos(613/100)/10 - \exp(-613/50)/10 + \exp(-1839/100)/10 + \sin(613/100)/10,$
 $\cos(307/50)/10 - \exp(-307/25)/10 + \exp(-921/50)/10 + \sin(307/50)/10, \cos(123/20)/10$
 $- \exp(-123/10)/10 + \exp(-369/20)/10 + \sin(123/20)/10, \cos(154/25)/10 - \exp(-$
 $308/25)/10 + \exp(-462/25)/10 + \sin(154/25)/10, \cos(617/100)/10 - \exp(-617/50)/10 +$
 $\exp(-1851/100)/10 + \sin(617/100)/10, \cos(309/50)/10 - \exp(-309/25)/10 + \exp(-$
 $927/50)/10 + \sin(309/50)/10, \cos(619/100)/10 - \exp(-619/50)/10 + \exp(-1857/100)/10$
 $+ \sin(619/100)/10, \cos(31/5)/10 - \exp(-62/5)/10 + \exp(-93/5)/10 + \sin(31/5)/10,$
 $\cos(621/100)/10 - \exp(-621/50)/10 + \exp(-1863/100)/10 + \sin(621/100)/10,$
 $\cos(311/50)/10 - \exp(-311/25)/10 + \exp(-933/50)/10 + \sin(311/50)/10,$
 $\cos(623/100)/10 - \exp(-623/50)/10 + \exp(-1869/100)/10 + \sin(623/100)/10,$
 $\cos(156/25)/10 - \exp(-312/25)/10 + \exp(-468/25)/10 + \sin(156/25)/10, \cos(25/4)/10 -$
 $\exp(-25/2)/10 + \exp(-75/4)/10 + \sin(25/4)/10, \cos(313/50)/10 - \exp(-313/25)/10 +$
 $\exp(-939/50)/10 + \sin(313/50)/10, \cos(627/100)/10 - \exp(-627/50)/10 + \exp(-$
 $1881/100)/10 + \sin(627/100)/10, \cos(157/25)/10 - \exp(-314/25)/10 + \exp(-471/25)/10$
 $+ \sin(157/25)/10, \cos(629/100)/10 - \exp(-629/50)/10 + \exp(-1887/100)/10 +$
 $\sin(629/100)/10, \cos(63/10)/10 - \exp(-63/5)/10 + \exp(-189/10)/10 + \sin(63/10)/10,$
 $\cos(631/100)/10 - \exp(-631/50)/10 + \exp(-1893/100)/10 + \sin(631/100)/10,$
 $\cos(158/25)/10 - \exp(-316/25)/10 + \exp(-474/25)/10 + \sin(158/25)/10,$
 $\cos(633/100)/10 - \exp(-633/50)/10 + \exp(-1899/100)/10 + \sin(633/100)/10,$
 $\cos(317/50)/10 - \exp(-317/25)/10 + \exp(-951/50)/10 + \sin(317/50)/10, \cos(127/20)/10$
 $- \exp(-127/10)/10 + \exp(-381/20)/10 + \sin(127/20)/10, \cos(159/25)/10 - \exp(-$
 $318/25)/10 + \exp(-477/25)/10 + \sin(159/25)/10, \cos(637/100)/10 - \exp(-637/50)/10 +$
 $\exp(-1911/100)/10 + \sin(637/100)/10, \cos(319/50)/10 - \exp(-319/25)/10 + \exp(-$
 $957/50)/10 + \sin(319/50)/10, \cos(639/100)/10 - \exp(-639/50)/10 + \exp(-1917/100)/10$
 $+ \sin(639/100)/10, \cos(32/5)/10 - \exp(-64/5)/10 + \exp(-96/5)/10 + \sin(32/5)/10,$
 $\cos(641/100)/10 - \exp(-641/50)/10 + \exp(-1923/100)/10 + \sin(641/100)/10,$
 $\cos(321/50)/10 - \exp(-321/25)/10 + \exp(-963/50)/10 + \sin(321/50)/10,$
 $\cos(643/100)/10 - \exp(-643/50)/10 + \exp(-1929/100)/10 + \sin(643/100)/10,$
 $\cos(161/25)/10 - \exp(-322/25)/10 + \exp(-483/25)/10 + \sin(161/25)/10, \cos(129/20)/10$
 $- \exp(-129/10)/10 + \exp(-387/20)/10 + \sin(129/20)/10, \cos(323/50)/10 - \exp(-$
 $323/25)/10 + \exp(-969/50)/10 + \sin(323/50)/10, \cos(647/100)/10 - \exp(-647/50)/10 +$
 $\exp(-1941/100)/10 + \sin(647/100)/10, \cos(162/25)/10 - \exp(-324/25)/10 + \exp(-$
 $486/25)/10 + \sin(162/25)/10, \cos(649/100)/10 - \exp(-649/50)/10 + \exp(-1947/100)/10$

$+ \sin(649/100)/10, \cos(13/2)/10 - \exp(-13)/10 + \exp(-39/2)/10 + \sin(13/2)/10,$
 $\cos(651/100)/10 - \exp(-651/50)/10 + \exp(-1953/100)/10 + \sin(651/100)/10,$
 $\cos(163/25)/10 - \exp(-326/25)/10 + \exp(-489/25)/10 + \sin(163/25)/10,$
 $\cos(653/100)/10 - \exp(-653/50)/10 + \exp(-1959/100)/10 + \sin(653/100)/10,$
 $\cos(327/50)/10 - \exp(-327/25)/10 + \exp(-981/50)/10 + \sin(327/50)/10, \cos(131/20)/10$
 $- \exp(-131/10)/10 + \exp(-393/20)/10 + \sin(131/20)/10, \cos(164/25)/10 - \exp(-$
 $328/25)/10 + \exp(-492/25)/10 + \sin(164/25)/10, \cos(657/100)/10 - \exp(-657/50)/10 +$
 $\exp(-1971/100)/10 + \sin(657/100)/10, \cos(329/50)/10 - \exp(-329/25)/10 + \exp(-$
 $987/50)/10 + \sin(329/50)/10, \cos(659/100)/10 - \exp(-659/50)/10 + \exp(-1977/100)/10$
 $+ \sin(659/100)/10, \cos(33/5)/10 - \exp(-66/5)/10 + \exp(-99/5)/10 + \sin(33/5)/10,$
 $\cos(661/100)/10 - \exp(-661/50)/10 + \exp(-1983/100)/10 + \sin(661/100)/10,$
 $\cos(331/50)/10 - \exp(-331/25)/10 + \exp(-993/50)/10 + \sin(331/50)/10,$
 $\cos(663/100)/10 - \exp(-663/50)/10 + \exp(-1989/100)/10 + \sin(663/100)/10,$
 $\cos(166/25)/10 - \exp(-332/25)/10 + \exp(-498/25)/10 + \sin(166/25)/10, \cos(133/20)/10$
 $- \exp(-133/10)/10 + \exp(-399/20)/10 + \sin(133/20)/10, \cos(333/50)/10 - \exp(-$
 $333/25)/10 + \exp(-999/50)/10 + \sin(333/50)/10, \cos(667/100)/10 - \exp(-667/50)/10 +$
 $\exp(-2001/100)/10 + \sin(667/100)/10, \cos(167/25)/10 - \exp(-334/25)/10 + \exp(-$
 $501/25)/10 + \sin(167/25)/10, \cos(669/100)/10 - \exp(-669/50)/10 + \exp(-2007/100)/10$
 $+ \sin(669/100)/10, \cos(67/10)/10 - \exp(-67/5)/10 + \exp(-201/10)/10 + \sin(67/10)/10,$
 $\cos(671/100)/10 - \exp(-671/50)/10 + \exp(-2013/100)/10 + \sin(671/100)/10,$
 $\cos(168/25)/10 - \exp(-336/25)/10 + \exp(-504/25)/10 + \sin(168/25)/10,$
 $\cos(673/100)/10 - \exp(-673/50)/10 + \exp(-2019/100)/10 + \sin(673/100)/10,$
 $\cos(337/50)/10 - \exp(-337/25)/10 + \exp(-1011/50)/10 + \sin(337/50)/10, \cos(27/4)/10$
 $- \exp(-27/2)/10 + \exp(-81/4)/10 + \sin(27/4)/10, \cos(169/25)/10 - \exp(-338/25)/10 +$
 $\exp(-507/25)/10 + \sin(169/25)/10, \cos(677/100)/10 - \exp(-677/50)/10 + \exp(-$
 $2031/100)/10 + \sin(677/100)/10, \cos(339/50)/10 - \exp(-339/25)/10 + \exp(-1017/50)/10$
 $+ \sin(339/50)/10, \cos(679/100)/10 - \exp(-679/50)/10 + \exp(-2037/100)/10 +$
 $\sin(679/100)/10, \cos(34/5)/10 - \exp(-68/5)/10 + \exp(-102/5)/10 + \sin(34/5)/10,$
 $\cos(681/100)/10 - \exp(-681/50)/10 + \exp(-2043/100)/10 + \sin(681/100)/10,$
 $\cos(341/50)/10 - \exp(-341/25)/10 + \exp(-1023/50)/10 + \sin(341/50)/10,$
 $\cos(683/100)/10 - \exp(-683/50)/10 + \exp(-2049/100)/10 + \sin(683/100)/10,$
 $\cos(171/25)/10 - \exp(-342/25)/10 + \exp(-513/25)/10 + \sin(171/25)/10, \cos(137/20)/10$
 $- \exp(-137/10)/10 + \exp(-411/20)/10 + \sin(137/20)/10, \cos(343/50)/10 - \exp(-$
 $343/25)/10 + \exp(-1029/50)/10 + \sin(343/50)/10, \cos(687/100)/10 - \exp(-687/50)/10 +$
 $\exp(-2061/100)/10 + \sin(687/100)/10, \cos(172/25)/10 - \exp(-344/25)/10 + \exp(-$
 $516/25)/10 + \sin(172/25)/10, \cos(689/100)/10 - \exp(-689/50)/10 + \exp(-2067/100)/10$
 $+ \sin(689/100)/10, \cos(69/10)/10 - \exp(-69/5)/10 + \exp(-207/10)/10 + \sin(69/10)/10,$
 $\cos(691/100)/10 - \exp(-691/50)/10 + \exp(-2073/100)/10 + \sin(691/100)/10,$
 $\cos(173/25)/10 - \exp(-346/25)/10 + \exp(-519/25)/10 + \sin(173/25)/10,$
 $\cos(693/100)/10 - \exp(-693/50)/10 + \exp(-2079/100)/10 + \sin(693/100)/10,$
 $\cos(347/50)/10 - \exp(-347/25)/10 + \exp(-1041/50)/10 + \sin(347/50)/10,$
 $\cos(139/20)/10 - \exp(-139/10)/10 + \exp(-417/20)/10 + \sin(139/20)/10, \cos(174/25)/10$
 $- \exp(-348/25)/10 + \exp(-522/25)/10 + \sin(174/25)/10, \cos(697/100)/10 - \exp(-$
 $697/50)/10 + \exp(-2091/100)/10 + \sin(697/100)/10, \cos(349/50)/10 - \exp(-349/25)/10$
 $+ \exp(-1047/50)/10 + \sin(349/50)/10, \cos(699/100)/10 - \exp(-699/50)/10 + \exp(-$
 $2097/100)/10 + \sin(699/100)/10, \cos(7)/10 - \exp(-14)/10 + \exp(-21)/10 + \sin(7)/10,$
 $\cos(701/100)/10 - \exp(-701/50)/10 + \exp(-2103/100)/10 + \sin(701/100)/10,$
 $\cos(351/50)/10 - \exp(-351/25)/10 + \exp(-1053/50)/10 + \sin(351/50)/10,$
 $\cos(703/100)/10 - \exp(-703/50)/10 + \exp(-2109/100)/10 + \sin(703/100)/10,$
 $\cos(176/25)/10 - \exp(-352/25)/10 + \exp(-528/25)/10 + \sin(176/25)/10, \cos(141/20)/10$
 $- \exp(-141/10)/10 + \exp(-423/20)/10 + \sin(141/20)/10, \cos(353/50)/10 - \exp(-$
 $353/25)/10 + \exp(-1059/50)/10 + \sin(353/50)/10, \cos(707/100)/10 - \exp(-707/50)/10 +$
 $\exp(-2121/100)/10 + \sin(707/100)/10, \cos(177/25)/10 - \exp(-354/25)/10 + \exp(-$
 $531/25)/10 + \sin(177/25)/10, \cos(709/100)/10 - \exp(-709/50)/10 + \exp(-2127/100)/10$
 $+ \sin(709/100)/10, \cos(71/10)/10 - \exp(-71/5)/10 + \exp(-213/10)/10 + \sin(71/10)/10,$

$\cos(711/100)/10 - \exp(-711/50)/10 + \exp(-2133/100)/10 + \sin(711/100)/10,$
 $\cos(178/25)/10 - \exp(-356/25)/10 + \exp(-534/25)/10 + \sin(178/25)/10,$
 $\cos(713/100)/10 - \exp(-713/50)/10 + \exp(-2139/100)/10 + \sin(713/100)/10,$
 $\cos(357/50)/10 - \exp(-357/25)/10 + \exp(-1071/50)/10 + \sin(357/50)/10,$
 $\cos(143/20)/10 - \exp(-143/10)/10 + \exp(-429/20)/10 + \sin(143/20)/10, \cos(179/25)/10$
 $- \exp(-358/25)/10 + \exp(-537/25)/10 + \sin(179/25)/10, \cos(717/100)/10 - \exp(-$
 $717/50)/10 + \exp(-2151/100)/10 + \sin(717/100)/10, \cos(359/50)/10 - \exp(-359/25)/10$
 $+ \exp(-1077/50)/10 + \sin(359/50)/10, \cos(719/100)/10 - \exp(-719/50)/10 + \exp(-$
 $2157/100)/10 + \sin(719/100)/10, \cos(36/5)/10 - \exp(-72/5)/10 + \exp(-108/5)/10 +$
 $\sin(36/5)/10, \cos(721/100)/10 - \exp(-721/50)/10 + \exp(-2163/100)/10 +$
 $\sin(721/100)/10, \cos(361/50)/10 - \exp(-361/25)/10 + \exp(-1083/50)/10 +$
 $\sin(361/50)/10, \cos(723/100)/10 - \exp(-723/50)/10 + \exp(-2169/100)/10 +$
 $\sin(723/100)/10, \cos(181/25)/10 - \exp(-362/25)/10 + \exp(-543/25)/10 +$
 $\sin(181/25)/10, \cos(29/4)/10 - \exp(-29/2)/10 + \exp(-87/4)/10 + \sin(29/4)/10,$
 $\cos(363/50)/10 - \exp(-363/25)/10 + \exp(-1089/50)/10 + \sin(363/50)/10,$
 $\cos(727/100)/10 - \exp(-727/50)/10 + \exp(-2181/100)/10 + \sin(727/100)/10,$
 $\cos(182/25)/10 - \exp(-364/25)/10 + \exp(-546/25)/10 + \sin(182/25)/10,$
 $\cos(729/100)/10 - \exp(-729/50)/10 + \exp(-2187/100)/10 + \sin(729/100)/10,$
 $\cos(73/10)/10 - \exp(-73/5)/10 + \exp(-219/10)/10 + \sin(73/10)/10, \cos(731/100)/10 -$
 $\exp(-731/50)/10 + \exp(-2193/100)/10 + \sin(731/100)/10, \cos(183/25)/10 - \exp(-$
 $366/25)/10 + \exp(-549/25)/10 + \sin(183/25)/10, \cos(733/100)/10 - \exp(-733/50)/10 +$
 $\exp(-2199/100)/10 + \sin(733/100)/10, \cos(367/50)/10 - \exp(-367/25)/10 + \exp(-$
 $1101/50)/10 + \sin(367/50)/10, \cos(147/20)/10 - \exp(-147/10)/10 + \exp(-441/20)/10 +$
 $\sin(147/20)/10, \cos(184/25)/10 - \exp(-368/25)/10 + \exp(-552/25)/10 +$
 $\sin(184/25)/10, \cos(737/100)/10 - \exp(-737/50)/10 + \exp(-2211/100)/10 +$
 $\sin(737/100)/10, \cos(369/50)/10 - \exp(-369/25)/10 + \exp(-1107/50)/10 +$
 $\sin(369/50)/10, \cos(739/100)/10 - \exp(-739/50)/10 + \exp(-2217/100)/10 +$
 $\sin(739/100)/10, \cos(37/5)/10 - \exp(-74/5)/10 + \exp(-111/5)/10 + \sin(37/5)/10,$
 $\cos(741/100)/10 - \exp(-741/50)/10 + \exp(-2223/100)/10 + \sin(741/100)/10,$
 $\cos(371/50)/10 - \exp(-371/25)/10 + \exp(-1113/50)/10 + \sin(371/50)/10,$
 $\cos(743/100)/10 - \exp(-743/50)/10 + \exp(-2229/100)/10 + \sin(743/100)/10,$
 $\cos(186/25)/10 - \exp(-372/25)/10 + \exp(-558/25)/10 + \sin(186/25)/10, \cos(149/20)/10$
 $- \exp(-149/10)/10 + \exp(-447/20)/10 + \sin(149/20)/10, \cos(373/50)/10 - \exp(-$
 $373/25)/10 + \exp(-1119/50)/10 + \sin(373/50)/10, \cos(747/100)/10 - \exp(-747/50)/10 +$
 $\exp(-2241/100)/10 + \sin(747/100)/10, \cos(187/25)/10 - \exp(-374/25)/10 + \exp(-$
 $561/25)/10 + \sin(187/25)/10, \cos(749/100)/10 - \exp(-749/50)/10 + \exp(-2247/100)/10$
 $+ \sin(749/100)/10, \cos(15/2)/10 - \exp(-15)/10 + \exp(-45/2)/10 + \sin(15/2)/10,$
 $\cos(751/100)/10 - \exp(-751/50)/10 + \exp(-2253/100)/10 + \sin(751/100)/10,$
 $\cos(188/25)/10 - \exp(-376/25)/10 + \exp(-564/25)/10 + \sin(188/25)/10,$
 $\cos(753/100)/10 - \exp(-753/50)/10 + \exp(-2259/100)/10 + \sin(753/100)/10,$
 $\cos(377/50)/10 - \exp(-377/25)/10 + \exp(-1131/50)/10 + \sin(377/50)/10,$
 $\cos(151/20)/10 - \exp(-151/10)/10 + \exp(-453/20)/10 + \sin(151/20)/10, \cos(189/25)/10$
 $- \exp(-378/25)/10 + \exp(-567/25)/10 + \sin(189/25)/10, \cos(757/100)/10 - \exp(-$
 $757/50)/10 + \exp(-2271/100)/10 + \sin(757/100)/10, \cos(379/50)/10 - \exp(-379/25)/10$
 $+ \exp(-1137/50)/10 + \sin(379/50)/10, \cos(759/100)/10 - \exp(-759/50)/10 + \exp(-$
 $2277/100)/10 + \sin(759/100)/10, \cos(38/5)/10 - \exp(-76/5)/10 + \exp(-114/5)/10 +$
 $\sin(38/5)/10, \cos(761/100)/10 - \exp(-761/50)/10 + \exp(-2283/100)/10 +$
 $\sin(761/100)/10, \cos(381/50)/10 - \exp(-381/25)/10 + \exp(-1143/50)/10 +$
 $\sin(381/50)/10, \cos(763/100)/10 - \exp(-763/50)/10 + \exp(-2289/100)/10 +$
 $\sin(763/100)/10, \cos(191/25)/10 - \exp(-382/25)/10 + \exp(-573/25)/10 +$
 $\sin(191/25)/10, \cos(153/20)/10 - \exp(-153/10)/10 + \exp(-459/20)/10 +$
 $\sin(153/20)/10, \cos(383/50)/10 - \exp(-383/25)/10 + \exp(-1149/50)/10 +$
 $\sin(383/50)/10, \cos(767/100)/10 - \exp(-767/50)/10 + \exp(-2301/100)/10 +$
 $\sin(767/100)/10, \cos(192/25)/10 - \exp(-384/25)/10 + \exp(-576/25)/10 +$
 $\sin(192/25)/10, \cos(769/100)/10 - \exp(-769/50)/10 + \exp(-2307/100)/10 +$

$\sin(769/100)/10, \cos(77/10)/10 - \exp(-77/5)/10 + \exp(-231/10)/10 + \sin(77/10)/10,$
 $\cos(771/100)/10 - \exp(-771/50)/10 + \exp(-2313/100)/10 + \sin(771/100)/10,$
 $\cos(193/25)/10 - \exp(-386/25)/10 + \exp(-579/25)/10 + \sin(193/25)/10,$
 $\cos(773/100)/10 - \exp(-773/50)/10 + \exp(-2319/100)/10 + \sin(773/100)/10,$
 $\cos(387/50)/10 - \exp(-387/25)/10 + \exp(-1161/50)/10 + \sin(387/50)/10, \cos(31/4)/10$
 $- \exp(-31/2)/10 + \exp(-93/4)/10 + \sin(31/4)/10, \cos(194/25)/10 - \exp(-388/25)/10 +$
 $\exp(-582/25)/10 + \sin(194/25)/10, \cos(777/100)/10 - \exp(-777/50)/10 + \exp(-$
 $2331/100)/10 + \sin(777/100)/10, \cos(389/50)/10 - \exp(-389/25)/10 + \exp(-1167/50)/10$
 $+ \sin(389/50)/10, \cos(779/100)/10 - \exp(-779/50)/10 + \exp(-2337/100)/10 +$
 $\sin(779/100)/10, \cos(39/5)/10 - \exp(-78/5)/10 + \exp(-117/5)/10 + \sin(39/5)/10,$
 $\cos(781/100)/10 - \exp(-781/50)/10 + \exp(-2343/100)/10 + \sin(781/100)/10,$
 $\cos(391/50)/10 - \exp(-391/25)/10 + \exp(-1173/50)/10 + \sin(391/50)/10,$
 $\cos(783/100)/10 - \exp(-783/50)/10 + \exp(-2349/100)/10 + \sin(783/100)/10,$
 $\cos(196/25)/10 - \exp(-392/25)/10 + \exp(-588/25)/10 + \sin(196/25)/10, \cos(157/20)/10$
 $- \exp(-157/10)/10 + \exp(-471/20)/10 + \sin(157/20)/10, \cos(393/50)/10 - \exp(-$
 $393/25)/10 + \exp(-1179/50)/10 + \sin(393/50)/10, \cos(787/100)/10 - \exp(-787/50)/10 +$
 $\exp(-2361/100)/10 + \sin(787/100)/10, \cos(197/25)/10 - \exp(-394/25)/10 + \exp(-$
 $591/25)/10 + \sin(197/25)/10, \cos(789/100)/10 - \exp(-789/50)/10 + \exp(-2367/100)/10$
 $+ \sin(789/100)/10, \cos(79/10)/10 - \exp(-79/5)/10 + \exp(-237/10)/10 + \sin(79/10)/10,$
 $\cos(791/100)/10 - \exp(-791/50)/10 + \exp(-2373/100)/10 + \sin(791/100)/10,$
 $\cos(198/25)/10 - \exp(-396/25)/10 + \exp(-594/25)/10 + \sin(198/25)/10,$
 $\cos(793/100)/10 - \exp(-793/50)/10 + \exp(-2379/100)/10 + \sin(793/100)/10,$
 $\cos(397/50)/10 - \exp(-397/25)/10 + \exp(-1191/50)/10 + \sin(397/50)/10,$
 $\cos(159/20)/10 - \exp(-159/10)/10 + \exp(-477/20)/10 + \sin(159/20)/10, \cos(199/25)/10$
 $- \exp(-398/25)/10 + \exp(-597/25)/10 + \sin(199/25)/10, \cos(797/100)/10 - \exp(-$
 $797/50)/10 + \exp(-2391/100)/10 + \sin(797/100)/10, \cos(399/50)/10 - \exp(-399/25)/10$
 $+ \exp(-1197/50)/10 + \sin(399/50)/10, \cos(799/100)/10 - \exp(-799/50)/10 + \exp(-$
 $2397/100)/10 + \sin(799/100)/10, \cos(8)/10 - \exp(-16)/10 + \exp(-24)/10 + \sin(8)/10,$
 $\cos(801/100)/10 - \exp(-801/50)/10 + \exp(-2403/100)/10 + \sin(801/100)/10,$
 $\cos(401/50)/10 - \exp(-401/25)/10 + \exp(-1203/50)/10 + \sin(401/50)/10,$
 $\cos(803/100)/10 - \exp(-803/50)/10 + \exp(-2409/100)/10 + \sin(803/100)/10,$
 $\cos(201/25)/10 - \exp(-402/25)/10 + \exp(-603/25)/10 + \sin(201/25)/10, \cos(161/20)/10$
 $- \exp(-161/10)/10 + \exp(-483/20)/10 + \sin(161/20)/10, \cos(403/50)/10 - \exp(-$
 $403/25)/10 + \exp(-1209/50)/10 + \sin(403/50)/10, \cos(807/100)/10 - \exp(-807/50)/10 +$
 $\exp(-2421/100)/10 + \sin(807/100)/10, \cos(202/25)/10 - \exp(-404/25)/10 + \exp(-$
 $606/25)/10 + \sin(202/25)/10, \cos(809/100)/10 - \exp(-809/50)/10 + \exp(-2427/100)/10$
 $+ \sin(809/100)/10, \cos(81/10)/10 - \exp(-81/5)/10 + \exp(-243/10)/10 + \sin(81/10)/10,$
 $\cos(811/100)/10 - \exp(-811/50)/10 + \exp(-2433/100)/10 + \sin(811/100)/10,$
 $\cos(203/25)/10 - \exp(-406/25)/10 + \exp(-609/25)/10 + \sin(203/25)/10,$
 $\cos(813/100)/10 - \exp(-813/50)/10 + \exp(-2439/100)/10 + \sin(813/100)/10,$
 $\cos(407/50)/10 - \exp(-407/25)/10 + \exp(-1221/50)/10 + \sin(407/50)/10,$
 $\cos(163/20)/10 - \exp(-163/10)/10 + \exp(-489/20)/10 + \sin(163/20)/10, \cos(204/25)/10$
 $- \exp(-408/25)/10 + \exp(-612/25)/10 + \sin(204/25)/10, \cos(817/100)/10 - \exp(-$
 $817/50)/10 + \exp(-2451/100)/10 + \sin(817/100)/10, \cos(409/50)/10 - \exp(-409/25)/10$
 $+ \exp(-1227/50)/10 + \sin(409/50)/10, \cos(819/100)/10 - \exp(-819/50)/10 + \exp(-$
 $2457/100)/10 + \sin(819/100)/10, \cos(41/5)/10 - \exp(-82/5)/10 + \exp(-123/5)/10 +$
 $\sin(41/5)/10, \cos(821/100)/10 - \exp(-821/50)/10 + \exp(-2463/100)/10 +$
 $\sin(821/100)/10, \cos(411/50)/10 - \exp(-411/25)/10 + \exp(-1233/50)/10 +$
 $\sin(411/50)/10, \cos(823/100)/10 - \exp(-823/50)/10 + \exp(-2469/100)/10 +$
 $\sin(823/100)/10, \cos(206/25)/10 - \exp(-412/25)/10 + \exp(-618/25)/10 +$
 $\sin(206/25)/10, \cos(33/4)/10 - \exp(-33/2)/10 + \exp(-99/4)/10 + \sin(33/4)/10,$
 $\cos(413/50)/10 - \exp(-413/25)/10 + \exp(-1239/50)/10 + \sin(413/50)/10,$
 $\cos(827/100)/10 - \exp(-827/50)/10 + \exp(-2481/100)/10 + \sin(827/100)/10,$
 $\cos(207/25)/10 - \exp(-414/25)/10 + \exp(-621/25)/10 + \sin(207/25)/10,$
 $\cos(829/100)/10 - \exp(-829/50)/10 + \exp(-2487/100)/10 + \sin(829/100)/10,$

$\cos(83/10)/10 - \exp(-83/5)/10 + \exp(-249/10)/10 + \sin(83/10)/10, \cos(831/100)/10 - \exp(-831/50)/10 + \exp(-2493/100)/10 + \sin(831/100)/10, \cos(208/25)/10 - \exp(-416/25)/10 + \exp(-624/25)/10 + \sin(208/25)/10, \cos(833/100)/10 - \exp(-833/50)/10 + \exp(-2499/100)/10 + \sin(833/100)/10, \cos(417/50)/10 - \exp(-417/25)/10 + \exp(-1251/50)/10 + \sin(417/50)/10, \cos(167/20)/10 - \exp(-167/10)/10 + \exp(-501/20)/10 + \sin(167/20)/10, \cos(209/25)/10 - \exp(-418/25)/10 + \exp(-627/25)/10 + \sin(209/25)/10, \cos(837/100)/10 - \exp(-837/50)/10 + \exp(-2511/100)/10 + \sin(837/100)/10, \cos(419/50)/10 - \exp(-419/25)/10 + \exp(-1257/50)/10 + \sin(419/50)/10, \cos(839/100)/10 - \exp(-839/50)/10 + \exp(-2517/100)/10 + \sin(839/100)/10, \cos(42/5)/10 - \exp(-84/5)/10 + \exp(-126/5)/10 + \sin(42/5)/10, \cos(841/100)/10 - \exp(-841/50)/10 + \exp(-2523/100)/10 + \sin(841/100)/10, \cos(421/50)/10 - \exp(-421/25)/10 + \exp(-1263/50)/10 + \sin(421/50)/10, \cos(843/100)/10 - \exp(-843/50)/10 + \exp(-2529/100)/10 + \sin(843/100)/10, \cos(211/25)/10 - \exp(-422/25)/10 + \exp(-633/25)/10 + \sin(211/25)/10, \cos(169/20)/10 - \exp(-169/10)/10 + \exp(-507/20)/10 + \sin(169/20)/10, \cos(423/50)/10 - \exp(-423/25)/10 + \exp(-1269/50)/10 + \sin(423/50)/10, \cos(847/100)/10 - \exp(-847/50)/10 + \exp(-2541/100)/10 + \sin(847/100)/10, \cos(212/25)/10 - \exp(-424/25)/10 + \exp(-636/25)/10 + \sin(212/25)/10, \cos(849/100)/10 - \exp(-849/50)/10 + \exp(-2547/100)/10 + \sin(849/100)/10, \cos(17/2)/10 - \exp(-17)/10 + \exp(-51/2)/10 + \sin(17/2)/10, \cos(851/100)/10 - \exp(-851/50)/10 + \exp(-2553/100)/10 + \sin(851/100)/10, \cos(213/25)/10 - \exp(-426/25)/10 + \exp(-639/25)/10 + \sin(213/25)/10, \cos(853/100)/10 - \exp(-853/50)/10 + \exp(-2559/100)/10 + \sin(853/100)/10, \cos(427/50)/10 - \exp(-427/25)/10 + \exp(-1281/50)/10 + \sin(427/50)/10, \cos(171/20)/10 - \exp(-171/10)/10 + \exp(-513/20)/10 + \sin(171/20)/10, \cos(214/25)/10 - \exp(-428/25)/10 + \exp(-642/25)/10 + \sin(214/25)/10, \cos(857/100)/10 - \exp(-857/50)/10 + \exp(-2571/100)/10 + \sin(857/100)/10, \cos(429/50)/10 - \exp(-429/25)/10 + \exp(-1287/50)/10 + \sin(429/50)/10, \cos(859/100)/10 - \exp(-859/50)/10 + \exp(-2577/100)/10 + \sin(859/100)/10, \cos(43/5)/10 - \exp(-86/5)/10 + \exp(-129/5)/10 + \sin(43/5)/10, \cos(861/100)/10 - \exp(-861/50)/10 + \exp(-2583/100)/10 + \sin(861/100)/10, \cos(431/50)/10 - \exp(-431/25)/10 + \exp(-1293/50)/10 + \sin(431/50)/10, \cos(863/100)/10 - \exp(-863/50)/10 + \exp(-2589/100)/10 + \sin(863/100)/10, \cos(216/25)/10 - \exp(-432/25)/10 + \exp(-648/25)/10 + \sin(216/25)/10, \cos(173/20)/10 - \exp(-173/10)/10 + \exp(-519/20)/10 + \sin(173/20)/10, \cos(433/50)/10 - \exp(-433/25)/10 + \exp(-1299/50)/10 + \sin(433/50)/10, \cos(867/100)/10 - \exp(-867/50)/10 + \exp(-2601/100)/10 + \sin(867/100)/10, \cos(217/25)/10 - \exp(-434/25)/10 + \exp(-651/25)/10 + \sin(217/25)/10, \cos(869/100)/10 - \exp(-869/50)/10 + \exp(-2607/100)/10 + \sin(869/100)/10, \cos(87/10)/10 - \exp(-87/5)/10 + \exp(-261/10)/10 + \sin(87/10)/10, \cos(871/100)/10 - \exp(-871/50)/10 + \exp(-2613/100)/10 + \sin(871/100)/10, \cos(218/25)/10 - \exp(-436/25)/10 + \exp(-654/25)/10 + \sin(218/25)/10, \cos(873/100)/10 - \exp(-873/50)/10 + \exp(-2619/100)/10 + \sin(873/100)/10, \cos(437/50)/10 - \exp(-437/25)/10 + \exp(-1311/50)/10 + \sin(437/50)/10, \cos(35/4)/10 - \exp(-35/2)/10 + \exp(-105/4)/10 + \sin(35/4)/10, \cos(219/25)/10 - \exp(-438/25)/10 + \exp(-657/25)/10 + \sin(219/25)/10, \cos(877/100)/10 - \exp(-877/50)/10 + \exp(-2631/100)/10 + \sin(877/100)/10, \cos(439/50)/10 - \exp(-439/25)/10 + \exp(-1317/50)/10 + \sin(439/50)/10, \cos(879/100)/10 - \exp(-879/50)/10 + \exp(-2637/100)/10 + \sin(879/100)/10, \cos(44/5)/10 - \exp(-88/5)/10 + \exp(-132/5)/10 + \sin(44/5)/10, \cos(881/100)/10 - \exp(-881/50)/10 + \exp(-2643/100)/10 + \sin(881/100)/10, \cos(441/50)/10 - \exp(-441/25)/10 + \exp(-1323/50)/10 + \sin(441/50)/10, \cos(883/100)/10 - \exp(-883/50)/10 + \exp(-2649/100)/10 + \sin(883/100)/10, \cos(221/25)/10 - \exp(-442/25)/10 + \exp(-663/25)/10 + \sin(221/25)/10, \cos(177/20)/10 - \exp(-177/10)/10 + \exp(-531/20)/10 + \sin(177/20)/10, \cos(443/50)/10 - \exp(-443/25)/10 + \exp(-1329/50)/10 + \sin(443/50)/10, \cos(887/100)/10 - \exp(-887/50)/10 + \exp(-2661/100)/10 + \sin(887/100)/10, \cos(222/25)/10 - \exp(-444/25)/10 + \exp(-666/25)/10 + \sin(222/25)/10, \cos(889/100)/10 - \exp(-889/50)/10 + \exp(-2667/100)/10$

$+ \sin(889/100)/10, \cos(89/10)/10 - \exp(-89/5)/10 + \exp(-267/10)/10 + \sin(89/10)/10,$
 $\cos(891/100)/10 - \exp(-891/50)/10 + \exp(-2673/100)/10 + \sin(891/100)/10,$
 $\cos(223/25)/10 - \exp(-446/25)/10 + \exp(-669/25)/10 + \sin(223/25)/10,$
 $\cos(893/100)/10 - \exp(-893/50)/10 + \exp(-2679/100)/10 + \sin(893/100)/10,$
 $\cos(447/50)/10 - \exp(-447/25)/10 + \exp(-1341/50)/10 + \sin(447/50)/10,$
 $\cos(179/20)/10 - \exp(-179/10)/10 + \exp(-537/20)/10 + \sin(179/20)/10, \cos(224/25)/10$
 $- \exp(-448/25)/10 + \exp(-672/25)/10 + \sin(224/25)/10, \cos(897/100)/10 - \exp(-$
 $897/50)/10 + \exp(-2691/100)/10 + \sin(897/100)/10, \cos(449/50)/10 - \exp(-449/25)/10$
 $+ \exp(-1347/50)/10 + \sin(449/50)/10, \cos(899/100)/10 - \exp(-899/50)/10 + \exp(-$
 $2697/100)/10 + \sin(899/100)/10, \cos(9)/10 - \exp(-18)/10 + \exp(-27)/10 + \sin(9)/10,$
 $\cos(901/100)/10 - \exp(-901/50)/10 + \exp(-2703/100)/10 + \sin(901/100)/10,$
 $\cos(451/50)/10 - \exp(-451/25)/10 + \exp(-1353/50)/10 + \sin(451/50)/10,$
 $\cos(903/100)/10 - \exp(-903/50)/10 + \exp(-2709/100)/10 + \sin(903/100)/10,$
 $\cos(226/25)/10 - \exp(-452/25)/10 + \exp(-678/25)/10 + \sin(226/25)/10, \cos(181/20)/10$
 $- \exp(-181/10)/10 + \exp(-543/20)/10 + \sin(181/20)/10, \cos(453/50)/10 - \exp(-$
 $453/25)/10 + \exp(-1359/50)/10 + \sin(453/50)/10, \cos(907/100)/10 - \exp(-907/50)/10 +$
 $\exp(-2721/100)/10 + \sin(907/100)/10, \cos(227/25)/10 - \exp(-454/25)/10 + \exp(-$
 $681/25)/10 + \sin(227/25)/10, \cos(909/100)/10 - \exp(-909/50)/10 + \exp(-2727/100)/10$
 $+ \sin(909/100)/10, \cos(91/10)/10 - \exp(-91/5)/10 + \exp(-273/10)/10 + \sin(91/10)/10,$
 $\cos(911/100)/10 - \exp(-911/50)/10 + \exp(-2733/100)/10 + \sin(911/100)/10,$
 $\cos(228/25)/10 - \exp(-456/25)/10 + \exp(-684/25)/10 + \sin(228/25)/10,$
 $\cos(913/100)/10 - \exp(-913/50)/10 + \exp(-2739/100)/10 + \sin(913/100)/10,$
 $\cos(457/50)/10 - \exp(-457/25)/10 + \exp(-1371/50)/10 + \sin(457/50)/10,$
 $\cos(183/20)/10 - \exp(-183/10)/10 + \exp(-549/20)/10 + \sin(183/20)/10, \cos(229/25)/10$
 $- \exp(-458/25)/10 + \exp(-687/25)/10 + \sin(229/25)/10, \cos(917/100)/10 - \exp(-$
 $917/50)/10 + \exp(-2751/100)/10 + \sin(917/100)/10, \cos(459/50)/10 - \exp(-459/25)/10$
 $+ \exp(-1377/50)/10 + \sin(459/50)/10, \cos(919/100)/10 - \exp(-919/50)/10 + \exp(-$
 $2757/100)/10 + \sin(919/100)/10, \cos(46/5)/10 - \exp(-92/5)/10 + \exp(-138/5)/10 +$
 $\sin(46/5)/10, \cos(921/100)/10 - \exp(-921/50)/10 + \exp(-2763/100)/10 +$
 $\sin(921/100)/10, \cos(461/50)/10 - \exp(-461/25)/10 + \exp(-1383/50)/10 +$
 $\sin(461/50)/10, \cos(923/100)/10 - \exp(-923/50)/10 + \exp(-2769/100)/10 +$
 $\sin(923/100)/10, \cos(231/25)/10 - \exp(-462/25)/10 + \exp(-693/25)/10 +$
 $\sin(231/25)/10, \cos(37/4)/10 - \exp(-37/2)/10 + \exp(-111/4)/10 + \sin(37/4)/10,$
 $\cos(463/50)/10 - \exp(-463/25)/10 + \exp(-1389/50)/10 + \sin(463/50)/10,$
 $\cos(927/100)/10 - \exp(-927/50)/10 + \exp(-2781/100)/10 + \sin(927/100)/10,$
 $\cos(232/25)/10 - \exp(-464/25)/10 + \exp(-696/25)/10 + \sin(232/25)/10,$
 $\cos(929/100)/10 - \exp(-929/50)/10 + \exp(-2787/100)/10 + \sin(929/100)/10,$
 $\cos(93/10)/10 - \exp(-93/5)/10 + \exp(-279/10)/10 + \sin(93/10)/10, \cos(931/100)/10 -$
 $\exp(-931/50)/10 + \exp(-2793/100)/10 + \sin(931/100)/10, \cos(233/25)/10 - \exp(-$
 $466/25)/10 + \exp(-699/25)/10 + \sin(233/25)/10, \cos(933/100)/10 - \exp(-933/50)/10 +$
 $\exp(-2799/100)/10 + \sin(933/100)/10, \cos(467/50)/10 - \exp(-467/25)/10 + \exp(-$
 $1401/50)/10 + \sin(467/50)/10, \cos(187/20)/10 - \exp(-187/10)/10 + \exp(-561/20)/10 +$
 $\sin(187/20)/10, \cos(234/25)/10 - \exp(-468/25)/10 + \exp(-702/25)/10 +$
 $\sin(234/25)/10, \cos(937/100)/10 - \exp(-937/50)/10 + \exp(-2811/100)/10 +$
 $\sin(937/100)/10, \cos(469/50)/10 - \exp(-469/25)/10 + \exp(-1407/50)/10 +$
 $\sin(469/50)/10, \cos(939/100)/10 - \exp(-939/50)/10 + \exp(-2817/100)/10 +$
 $\sin(939/100)/10, \cos(47/5)/10 - \exp(-94/5)/10 + \exp(-141/5)/10 + \sin(47/5)/10,$
 $\cos(941/100)/10 - \exp(-941/50)/10 + \exp(-2823/100)/10 + \sin(941/100)/10,$
 $\cos(471/50)/10 - \exp(-471/25)/10 + \exp(-1413/50)/10 + \sin(471/50)/10,$
 $\cos(943/100)/10 - \exp(-943/50)/10 + \exp(-2829/100)/10 + \sin(943/100)/10,$
 $\cos(236/25)/10 - \exp(-472/25)/10 + \exp(-708/25)/10 + \sin(236/25)/10, \cos(189/20)/10$
 $- \exp(-189/10)/10 + \exp(-567/20)/10 + \sin(189/20)/10, \cos(473/50)/10 - \exp(-$
 $473/25)/10 + \exp(-1419/50)/10 + \sin(473/50)/10, \cos(947/100)/10 - \exp(-947/50)/10 +$
 $\exp(-2841/100)/10 + \sin(947/100)/10, \cos(237/25)/10 - \exp(-474/25)/10 + \exp(-$
 $711/25)/10 + \sin(237/25)/10, \cos(949/100)/10 - \exp(-949/50)/10 + \exp(-2847/100)/10$

$+ \sin(949/100)/10, \cos(19/2)/10 - \exp(-19)/10 + \exp(-57/2)/10 + \sin(19/2)/10,$
 $\cos(951/100)/10 - \exp(-951/50)/10 + \exp(-2853/100)/10 + \sin(951/100)/10,$
 $\cos(238/25)/10 - \exp(-476/25)/10 + \exp(-714/25)/10 + \sin(238/25)/10,$
 $\cos(953/100)/10 - \exp(-953/50)/10 + \exp(-2859/100)/10 + \sin(953/100)/10,$
 $\cos(477/50)/10 - \exp(-477/25)/10 + \exp(-1431/50)/10 + \sin(477/50)/10,$
 $\cos(191/20)/10 - \exp(-191/10)/10 + \exp(-573/20)/10 + \sin(191/20)/10, \cos(239/25)/10$
 $- \exp(-478/25)/10 + \exp(-717/25)/10 + \sin(239/25)/10, \cos(957/100)/10 - \exp(-$
 $957/50)/10 + \exp(-2871/100)/10 + \sin(957/100)/10, \cos(479/50)/10 - \exp(-479/25)/10$
 $+ \exp(-1437/50)/10 + \sin(479/50)/10, \cos(959/100)/10 - \exp(-959/50)/10 + \exp(-$
 $2877/100)/10 + \sin(959/100)/10, \cos(48/5)/10 - \exp(-96/5)/10 + \exp(-144/5)/10 +$
 $\sin(48/5)/10, \cos(961/100)/10 - \exp(-961/50)/10 + \exp(-2883/100)/10 +$
 $\sin(961/100)/10, \cos(481/50)/10 - \exp(-481/25)/10 + \exp(-1443/50)/10 +$
 $\sin(481/50)/10, \cos(963/100)/10 - \exp(-963/50)/10 + \exp(-2889/100)/10 +$
 $\sin(963/100)/10, \cos(241/25)/10 - \exp(-482/25)/10 + \exp(-723/25)/10 +$
 $\sin(241/25)/10, \cos(193/20)/10 - \exp(-193/10)/10 + \exp(-579/20)/10 +$
 $\sin(193/20)/10, \cos(483/50)/10 - \exp(-483/25)/10 + \exp(-1449/50)/10 +$
 $\sin(483/50)/10, \cos(967/100)/10 - \exp(-967/50)/10 + \exp(-2901/100)/10 +$
 $\sin(967/100)/10, \cos(242/25)/10 - \exp(-484/25)/10 + \exp(-726/25)/10 +$
 $\sin(242/25)/10, \cos(969/100)/10 - \exp(-969/50)/10 + \exp(-2907/100)/10 +$
 $\sin(969/100)/10, \cos(97/10)/10 - \exp(-97/5)/10 + \exp(-291/10)/10 + \sin(97/10)/10,$
 $\cos(971/100)/10 - \exp(-971/50)/10 + \exp(-2913/100)/10 + \sin(971/100)/10,$
 $\cos(243/25)/10 - \exp(-486/25)/10 + \exp(-729/25)/10 + \sin(243/25)/10,$
 $\cos(973/100)/10 - \exp(-973/50)/10 + \exp(-2919/100)/10 + \sin(973/100)/10,$
 $\cos(487/50)/10 - \exp(-487/25)/10 + \exp(-1461/50)/10 + \sin(487/50)/10, \cos(39/4)/10$
 $- \exp(-39/2)/10 + \exp(-117/4)/10 + \sin(39/4)/10, \cos(244/25)/10 - \exp(-488/25)/10 +$
 $\exp(-732/25)/10 + \sin(244/25)/10, \cos(977/100)/10 - \exp(-977/50)/10 + \exp(-$
 $2931/100)/10 + \sin(977/100)/10, \cos(489/50)/10 - \exp(-489/25)/10 + \exp(-1467/50)/10$
 $+ \sin(489/50)/10, \cos(979/100)/10 - \exp(-979/50)/10 + \exp(-2937/100)/10 +$
 $\sin(979/100)/10, \cos(49/5)/10 - \exp(-98/5)/10 + \exp(-147/5)/10 + \sin(49/5)/10,$
 $\cos(981/100)/10 - \exp(-981/50)/10 + \exp(-2943/100)/10 + \sin(981/100)/10,$
 $\cos(491/50)/10 - \exp(-491/25)/10 + \exp(-1473/50)/10 + \sin(491/50)/10,$
 $\cos(983/100)/10 - \exp(-983/50)/10 + \exp(-2949/100)/10 + \sin(983/100)/10,$
 $\cos(246/25)/10 - \exp(-492/25)/10 + \exp(-738/25)/10 + \sin(246/25)/10, \cos(197/20)/10$
 $- \exp(-197/10)/10 + \exp(-591/20)/10 + \sin(197/20)/10, \cos(493/50)/10 - \exp(-$
 $493/25)/10 + \exp(-1479/50)/10 + \sin(493/50)/10, \cos(987/100)/10 - \exp(-987/50)/10 +$
 $\exp(-2961/100)/10 + \sin(987/100)/10, \cos(247/25)/10 - \exp(-494/25)/10 + \exp(-$
 $741/25)/10 + \sin(247/25)/10, \cos(989/100)/10 - \exp(-989/50)/10 + \exp(-2967/100)/10$
 $+ \sin(989/100)/10, \cos(99/10)/10 - \exp(-99/5)/10 + \exp(-297/10)/10 + \sin(99/10)/10,$
 $\cos(991/100)/10 - \exp(-991/50)/10 + \exp(-2973/100)/10 + \sin(991/100)/10,$
 $\cos(248/25)/10 - \exp(-496/25)/10 + \exp(-744/25)/10 + \sin(248/25)/10,$
 $\cos(993/100)/10 - \exp(-993/50)/10 + \exp(-2979/100)/10 + \sin(993/100)/10,$
 $\cos(497/50)/10 - \exp(-497/25)/10 + \exp(-1491/50)/10 + \sin(497/50)/10,$
 $\cos(199/20)/10 - \exp(-199/10)/10 + \exp(-597/20)/10 + \sin(199/20)/10, \cos(249/25)/10$
 $- \exp(-498/25)/10 + \exp(-747/25)/10 + \sin(249/25)/10, \cos(997/100)/10 - \exp(-$
 $997/50)/10 + \exp(-2991/100)/10 + \sin(997/100)/10, \cos(499/50)/10 - \exp(-499/25)/10$
 $+ \exp(-1497/50)/10 + \sin(499/50)/10, \cos(999/100)/10 - \exp(-999/50)/10 + \exp(-$
 $2997/100)/10 + \sin(999/100)/10, \cos(10)/10 - \exp(-20)/10 + \exp(-30)/10 +$
 $\sin(10)/10, \cos(1001/100)/10 - \exp(-1001/50)/10 + \exp(-3003/100)/10 +$
 $\sin(1001/100)/10, \cos(501/50)/10 - \exp(-501/25)/10 + \exp(-1503/50)/10 +$
 $\sin(501/50)/10, \cos(1003/100)/10 - \exp(-1003/50)/10 + \exp(-3009/100)/10 +$
 $\sin(1003/100)/10, \cos(251/25)/10 - \exp(-502/25)/10 + \exp(-753/25)/10 +$
 $\sin(251/25)/10, \cos(201/20)/10 - \exp(-201/10)/10 + \exp(-603/20)/10 +$
 $\sin(201/20)/10, \cos(503/50)/10 - \exp(-503/25)/10 + \exp(-1509/50)/10 +$
 $\sin(503/50)/10, \cos(1007/100)/10 - \exp(-1007/50)/10 + \exp(-3021/100)/10 +$
 $\sin(1007/100)/10, \cos(252/25)/10 - \exp(-504/25)/10 + \exp(-756/25)/10 +$

$\sin(252/25)/10, \cos(1009/100)/10 - \exp(-1009/50)/10 + \exp(-3027/100)/10 +$
 $\sin(1009/100)/10, \cos(101/10)/10 - \exp(-101/5)/10 + \exp(-303/10)/10 +$
 $\sin(101/10)/10, \cos(1011/100)/10 - \exp(-1011/50)/10 + \exp(-3033/100)/10 +$
 $\sin(1011/100)/10, \cos(253/25)/10 - \exp(-506/25)/10 + \exp(-759/25)/10 +$
 $\sin(253/25)/10, \cos(1013/100)/10 - \exp(-1013/50)/10 + \exp(-3039/100)/10 +$
 $\sin(1013/100)/10, \cos(507/50)/10 - \exp(-507/25)/10 + \exp(-1521/50)/10 +$
 $\sin(507/50)/10, \cos(203/20)/10 - \exp(-203/10)/10 + \exp(-609/20)/10 +$
 $\sin(203/20)/10, \cos(254/25)/10 - \exp(-508/25)/10 + \exp(-762/25)/10 +$
 $\sin(254/25)/10, \cos(1017/100)/10 - \exp(-1017/50)/10 + \exp(-3051/100)/10 +$
 $\sin(1017/100)/10, \cos(509/50)/10 - \exp(-509/25)/10 + \exp(-1527/50)/10 +$
 $\sin(509/50)/10, \cos(1019/100)/10 - \exp(-1019/50)/10 + \exp(-3057/100)/10 +$
 $\sin(1019/100)/10, \cos(51/5)/10 - \exp(-102/5)/10 + \exp(-153/5)/10 + \sin(51/5)/10,$
 $\cos(1021/100)/10 - \exp(-1021/50)/10 + \exp(-3063/100)/10 + \sin(1021/100)/10,$
 $\cos(511/50)/10 - \exp(-511/25)/10 + \exp(-1533/50)/10 + \sin(511/50)/10,$
 $\cos(1023/100)/10 - \exp(-1023/50)/10 + \exp(-3069/100)/10 + \sin(1023/100)/10,$
 $\cos(256/25)/10 - \exp(-512/25)/10 + \exp(-768/25)/10 + \sin(256/25)/10, \cos(41/4)/10 -$
 $\exp(-41/2)/10 + \exp(-123/4)/10 + \sin(41/4)/10, \cos(513/50)/10 - \exp(-513/25)/10 +$
 $\exp(-1539/50)/10 + \sin(513/50)/10, \cos(1027/100)/10 - \exp(-1027/50)/10 + \exp(-$
 $3081/100)/10 + \sin(1027/100)/10, \cos(257/25)/10 - \exp(-514/25)/10 + \exp(-771/25)/10$
 $+ \sin(257/25)/10, \cos(1029/100)/10 - \exp(-1029/50)/10 + \exp(-3087/100)/10 +$
 $\sin(1029/100)/10, \cos(103/10)/10 - \exp(-103/5)/10 + \exp(-309/10)/10 +$
 $\sin(103/10)/10, \cos(1031/100)/10 - \exp(-1031/50)/10 + \exp(-3093/100)/10 +$
 $\sin(1031/100)/10, \cos(258/25)/10 - \exp(-516/25)/10 + \exp(-774/25)/10 +$
 $\sin(258/25)/10, \cos(1033/100)/10 - \exp(-1033/50)/10 + \exp(-3099/100)/10 +$
 $\sin(1033/100)/10, \cos(517/50)/10 - \exp(-517/25)/10 + \exp(-1551/50)/10 +$
 $\sin(517/50)/10, \cos(207/20)/10 - \exp(-207/10)/10 + \exp(-621/20)/10 +$
 $\sin(207/20)/10, \cos(259/25)/10 - \exp(-518/25)/10 + \exp(-777/25)/10 +$
 $\sin(259/25)/10, \cos(1037/100)/10 - \exp(-1037/50)/10 + \exp(-3111/100)/10 +$
 $\sin(1037/100)/10, \cos(519/50)/10 - \exp(-519/25)/10 + \exp(-1557/50)/10 +$
 $\sin(519/50)/10, \cos(1039/100)/10 - \exp(-1039/50)/10 + \exp(-3117/100)/10 +$
 $\sin(1039/100)/10, \cos(52/5)/10 - \exp(-104/5)/10 + \exp(-156/5)/10 + \sin(52/5)/10,$
 $\cos(1041/100)/10 - \exp(-1041/50)/10 + \exp(-3123/100)/10 + \sin(1041/100)/10,$
 $\cos(521/50)/10 - \exp(-521/25)/10 + \exp(-1563/50)/10 + \sin(521/50)/10,$
 $\cos(1043/100)/10 - \exp(-1043/50)/10 + \exp(-3129/100)/10 + \sin(1043/100)/10,$
 $\cos(261/25)/10 - \exp(-522/25)/10 + \exp(-783/25)/10 + \sin(261/25)/10, \cos(209/20)/10$
 $- \exp(-209/10)/10 + \exp(-627/20)/10 + \sin(209/20)/10, \cos(523/50)/10 - \exp(-$
 $523/25)/10 + \exp(-1569/50)/10 + \sin(523/50)/10, \cos(1047/100)/10 - \exp(-1047/50)/10$
 $+ \exp(-3141/100)/10 + \sin(1047/100)/10, \cos(262/25)/10 - \exp(-524/25)/10 + \exp(-$
 $786/25)/10 + \sin(262/25)/10, \cos(1049/100)/10 - \exp(-1049/50)/10 + \exp(-$
 $3147/100)/10 + \sin(1049/100)/10, \cos(21/2)/10 - \exp(-21)/10 + \exp(-63/2)/10 +$
 $\sin(21/2)/10, \cos(1051/100)/10 - \exp(-1051/50)/10 + \exp(-3153/100)/10 +$
 $\sin(1051/100)/10, \cos(263/25)/10 - \exp(-526/25)/10 + \exp(-789/25)/10 +$
 $\sin(263/25)/10, \cos(1053/100)/10 - \exp(-1053/50)/10 + \exp(-3159/100)/10 +$
 $\sin(1053/100)/10, \cos(527/50)/10 - \exp(-527/25)/10 + \exp(-1581/50)/10 +$
 $\sin(527/50)/10, \cos(211/20)/10 - \exp(-211/10)/10 + \exp(-633/20)/10 +$
 $\sin(211/20)/10, \cos(264/25)/10 - \exp(-528/25)/10 + \exp(-792/25)/10 +$
 $\sin(264/25)/10, \cos(1057/100)/10 - \exp(-1057/50)/10 + \exp(-3171/100)/10 +$
 $\sin(1057/100)/10, \cos(529/50)/10 - \exp(-529/25)/10 + \exp(-1587/50)/10 +$
 $\sin(529/50)/10, \cos(1059/100)/10 - \exp(-1059/50)/10 + \exp(-3177/100)/10 +$
 $\sin(1059/100)/10, \cos(53/5)/10 - \exp(-106/5)/10 + \exp(-159/5)/10 + \sin(53/5)/10,$
 $\cos(1061/100)/10 - \exp(-1061/50)/10 + \exp(-3183/100)/10 + \sin(1061/100)/10,$
 $\cos(531/50)/10 - \exp(-531/25)/10 + \exp(-1593/50)/10 + \sin(531/50)/10,$
 $\cos(1063/100)/10 - \exp(-1063/50)/10 + \exp(-3189/100)/10 + \sin(1063/100)/10,$
 $\cos(266/25)/10 - \exp(-532/25)/10 + \exp(-798/25)/10 + \sin(266/25)/10, \cos(213/20)/10$
 $- \exp(-213/10)/10 + \exp(-639/20)/10 + \sin(213/20)/10, \cos(533/50)/10 - \exp(-$

$$\begin{aligned}
& 533/25)/10 + \exp(-1599/50)/10 + \sin(533/50)/10, \cos(1067/100)/10 - \exp(-1067/50)/10 \\
& + \exp(-3201/100)/10 + \sin(1067/100)/10, \cos(267/25)/10 - \exp(-534/25)/10 + \exp(-801/25)/10 \\
& + \sin(267/25)/10, \cos(1069/100)/10 - \exp(-1069/50)/10 + \exp(-3207/100)/10 + \sin(1069/100)/10, \\
& \cos(107/10)/10 - \exp(-107/5)/10 + \exp(-321/10)/10 + \sin(107/10)/10, \cos(1071/100)/10 - \exp(-1071/50)/10 \\
& + \exp(-3213/100)/10 + \sin(1071/100)/10, \cos(268/25)/10 - \exp(-536/25)/10 + \exp(-804/25)/10 + \sin(268/25)/10, \\
& \cos(1073/100)/10 - \exp(-1073/50)/10 + \exp(-3219/100)/10 + \sin(1073/100)/10, \cos(537/50)/10 - \exp(-537/25)/10 \\
& + \exp(-1611/50)/10 + \sin(537/50)/10, \cos(43/4)/10 - \exp(-43/2)/10 + \exp(-129/4)/10 + \sin(43/4)/10, \\
& \cos(269/25)/10 - \exp(-538/25)/10 + \exp(-807/25)/10 + \sin(269/25)/10, \cos(1077/100)/10 - \exp(-1077/50)/10 \\
& + \exp(-3231/100)/10 + \sin(1077/100)/10, \cos(539/50)/10 - \exp(-539/25)/10 + \exp(-1617/50)/10 + \sin(539/50)/10, \\
& \cos(1079/100)/10 - \exp(-1079/50)/10 + \exp(-3237/100)/10 + \sin(1079/100)/10, \cos(54/5)/10 - \exp(-108/5)/10 \\
& + \exp(-162/5)/10 + \sin(54/5)/10, \cos(1081/100)/10 - \exp(-1081/50)/10 + \exp(-3243/100)/10 + \sin(1081/100)/10, \\
& \cos(541/50)/10 - \exp(-541/25)/10 + \exp(-1623/50)/10 + \sin(541/50)/10, \cos(1083/100)/10 - \exp(-1083/50)/10 \\
& + \exp(-3249/100)/10 + \sin(1083/100)/10, \cos(271/25)/10 - \exp(-542/25)/10 + \exp(-813/25)/10 + \sin(271/25)/10, \\
& \cos(217/20)/10 - \exp(-217/10)/10 + \exp(-651/20)/10 + \sin(217/20)/10, \cos(543/50)/10 - \exp(-543/25)/10 \\
& + \exp(-1629/50)/10 + \sin(543/50)/10, \cos(1087/100)/10 - \exp(-1087/50)/10 + \exp(-3261/100)/10 + \sin(1087/100)/10, \\
& \cos(272/25)/10 - \exp(-544/25)/10 + \exp(-816/25)/10 + \sin(272/25)/10, \cos(1089/100)/10 - \exp(-1089/50)/10 \\
& + \exp(-3267/100)/10 + \sin(1089/100)/10, \cos(109/10)/10 - \exp(-109/5)/10 + \exp(-327/10)/10 + \sin(109/10)/10, \\
& \cos(1091/100)/10 - \exp(-1091/50)/10 + \exp(-3273/100)/10 + \sin(1091/100)/10, \cos(273/25)/10 - \exp(-546/25)/10 \\
& + \exp(-819/25)/10 + \sin(273/25)/10, \cos(1093/100)/10 - \exp(-1093/50)/10 + \exp(-3279/100)/10 + \sin(1093/100)/10, \\
& \cos(547/50)/10 - \exp(-547/25)/10 + \exp(-1641/50)/10 + \sin(547/50)/10, \cos(219/20)/10 - \exp(-219/10)/10 \\
& + \exp(-657/20)/10 + \sin(219/20)/10, \cos(274/25)/10 - \exp(-548/25)/10 + \exp(-822/25)/10 + \sin(274/25)/10, \\
& \cos(1097/100)/10 - \exp(-1097/50)/10 + \exp(-3291/100)/10 + \sin(1097/100)/10, \cos(549/50)/10 - \exp(-549/25)/10 \\
& + \exp(-1647/50)/10 + \sin(549/50)/10, \cos(1099/100)/10 - \exp(-1099/50)/10 + \exp(-3297/100)/10 + \sin(1099/100)/10, \\
& \cos(11)/10 - \exp(-22)/10 + \exp(-33)/10 + \sin(11)/10, \cos(1101/100)/10 - \exp(-1101/50)/10 + \exp(-3303/100)/10 \\
& + \sin(1101/100)/10, \cos(551/50)/10 - \exp(-551/25)/10 + \exp(-1653/50)/10 + \sin(551/50)/10, \cos(1103/100)/10 - \exp(-1103/50)/10 \\
& + \exp(-3309/100)/10 + \sin(1103/100)/10, \cos(276/25)/10 - \exp(-552/25)/10 + \exp(-828/25)/10 + \sin(276/25)/10, \\
& \cos(221/20)/10 - \exp(-221/10)/10 + \exp(-663/20)/10 + \sin(221/20)/10, \cos(553/50)/10 - \exp(-553/25)/10 \\
& + \exp(-1659/50)/10 + \sin(553/50)/10, \cos(1107/100)/10 - \exp(-1107/50)/10 + \exp(-3321/100)/10 + \sin(1107/100)/10, \\
& \cos(277/25)/10 - \exp(-554/25)/10 + \exp(-831/25)/10 + \sin(277/25)/10, \cos(1109/100)/10 - \exp(-1109/50)/10 + \exp(-3327/100)/10 \\
& + \sin(1109/100)/10, \cos(111/10)/10 - \exp(-111/5)/10 + \exp(-333/10)/10 + \sin(111/10)/10, \cos(1111/100)/10 - \exp(-1111/50)/10 \\
& + \exp(-3333/100)/10 + \sin(1111/100)/10, \cos(278/25)/10 - \exp(-556/25)/10 + \exp(-834/25)/10 + \sin(278/25)/10, \\
& \cos(1113/100)/10 - \exp(-1113/50)/10 + \exp(-3339/100)/10 + \sin(1113/100)/10, \cos(557/50)/10 - \exp(-557/25)/10 \\
& + \exp(-1671/50)/10 + \sin(557/50)/10, \cos(223/20)/10 - \exp(-223/10)/10 + \exp(-669/20)/10 + \sin(223/20)/10, \\
& \cos(279/25)/10 - \exp(-558/25)/10 + \exp(-837/25)/10 + \sin(279/25)/10, \cos(1117/100)/10 - \exp(-1117/50)/10 \\
& + \exp(-3351/100)/10 + \sin(1117/100)/10, \cos(559/50)/10 - \exp(-559/25)/10 + \exp(-1677/50)/10 + \sin(559/50)/10, \\
& \cos(1119/100)/10 - \exp(-1119/50)/10 + \exp(-3357/100)/10 + \sin(1119/100)/10, \cos(56/5)/10 - \exp(-112/5)/10 \\
& + \exp(-168/5)/10 + \sin(56/5)/10, \cos(1121/100)/10 - \exp(-1121/50)/10 + \exp(-3363/100)/10 + \sin(1121/100)/10, \\
& \cos(561/50)/10 - \exp(-561/25)/10 + \exp(-1683/50)/10 + \sin(561/50)/10, \cos(1123/100)/10 - \exp(-1123/50)/10 \\
& + \exp(-3369/100)/10 + \sin(1123/100)/10,
\end{aligned}$$

$\cos(281/25)/10 - \exp(-562/25)/10 + \exp(-843/25)/10 + \sin(281/25)/10, \cos(45/4)/10 -$
 $\exp(-45/2)/10 + \exp(-135/4)/10 + \sin(45/4)/10, \cos(563/50)/10 - \exp(-563/25)/10 +$
 $\exp(-1689/50)/10 + \sin(563/50)/10, \cos(1127/100)/10 - \exp(-1127/50)/10 + \exp(-$
 $3381/100)/10 + \sin(1127/100)/10, \cos(282/25)/10 - \exp(-564/25)/10 + \exp(-846/25)/10$
 $+ \sin(282/25)/10, \cos(1129/100)/10 - \exp(-1129/50)/10 + \exp(-3387/100)/10 +$
 $\sin(1129/100)/10, \cos(113/10)/10 - \exp(-113/5)/10 + \exp(-339/10)/10 +$
 $\sin(113/10)/10, \cos(1131/100)/10 - \exp(-1131/50)/10 + \exp(-3393/100)/10 +$
 $\sin(1131/100)/10, \cos(283/25)/10 - \exp(-566/25)/10 + \exp(-849/25)/10 +$
 $\sin(283/25)/10, \cos(1133/100)/10 - \exp(-1133/50)/10 + \exp(-3399/100)/10 +$
 $\sin(1133/100)/10, \cos(567/50)/10 - \exp(-567/25)/10 + \exp(-1701/50)/10 +$
 $\sin(567/50)/10, \cos(227/20)/10 - \exp(-227/10)/10 + \exp(-681/20)/10 +$
 $\sin(227/20)/10, \cos(284/25)/10 - \exp(-568/25)/10 + \exp(-852/25)/10 +$
 $\sin(284/25)/10, \cos(1137/100)/10 - \exp(-1137/50)/10 + \exp(-3411/100)/10 +$
 $\sin(1137/100)/10, \cos(569/50)/10 - \exp(-569/25)/10 + \exp(-1707/50)/10 +$
 $\sin(569/50)/10, \cos(1139/100)/10 - \exp(-1139/50)/10 + \exp(-3417/100)/10 +$
 $\sin(1139/100)/10, \cos(57/5)/10 - \exp(-114/5)/10 + \exp(-171/5)/10 + \sin(57/5)/10,$
 $\cos(1141/100)/10 - \exp(-1141/50)/10 + \exp(-3423/100)/10 + \sin(1141/100)/10,$
 $\cos(571/50)/10 - \exp(-571/25)/10 + \exp(-1713/50)/10 + \sin(571/50)/10,$
 $\cos(1143/100)/10 - \exp(-1143/50)/10 + \exp(-3429/100)/10 + \sin(1143/100)/10,$
 $\cos(286/25)/10 - \exp(-572/25)/10 + \exp(-858/25)/10 + \sin(286/25)/10, \cos(229/20)/10$
 $- \exp(-229/10)/10 + \exp(-687/20)/10 + \sin(229/20)/10, \cos(573/50)/10 - \exp(-$
 $573/25)/10 + \exp(-1719/50)/10 + \sin(573/50)/10, \cos(1147/100)/10 - \exp(-1147/50)/10$
 $+ \exp(-3441/100)/10 + \sin(1147/100)/10, \cos(287/25)/10 - \exp(-574/25)/10 + \exp(-$
 $861/25)/10 + \sin(287/25)/10, \cos(1149/100)/10 - \exp(-1149/50)/10 + \exp(-$
 $3447/100)/10 + \sin(1149/100)/10, \cos(23/2)/10 - \exp(-23)/10 + \exp(-69/2)/10 +$
 $\sin(23/2)/10, \cos(1151/100)/10 - \exp(-1151/50)/10 + \exp(-3453/100)/10 +$
 $\sin(1151/100)/10, \cos(288/25)/10 - \exp(-576/25)/10 + \exp(-864/25)/10 +$
 $\sin(288/25)/10, \cos(1153/100)/10 - \exp(-1153/50)/10 + \exp(-3459/100)/10 +$
 $\sin(1153/100)/10, \cos(577/50)/10 - \exp(-577/25)/10 + \exp(-1731/50)/10 +$
 $\sin(577/50)/10, \cos(231/20)/10 - \exp(-231/10)/10 + \exp(-693/20)/10 +$
 $\sin(231/20)/10, \cos(289/25)/10 - \exp(-578/25)/10 + \exp(-867/25)/10 +$
 $\sin(289/25)/10, \cos(1157/100)/10 - \exp(-1157/50)/10 + \exp(-3471/100)/10 +$
 $\sin(1157/100)/10, \cos(579/50)/10 - \exp(-579/25)/10 + \exp(-1737/50)/10 +$
 $\sin(579/50)/10, \cos(1159/100)/10 - \exp(-1159/50)/10 + \exp(-3477/100)/10 +$
 $\sin(1159/100)/10, \cos(58/5)/10 - \exp(-116/5)/10 + \exp(-174/5)/10 + \sin(58/5)/10,$
 $\cos(1161/100)/10 - \exp(-1161/50)/10 + \exp(-3483/100)/10 + \sin(1161/100)/10,$
 $\cos(581/50)/10 - \exp(-581/25)/10 + \exp(-1743/50)/10 + \sin(581/50)/10,$
 $\cos(1163/100)/10 - \exp(-1163/50)/10 + \exp(-3489/100)/10 + \sin(1163/100)/10,$
 $\cos(291/25)/10 - \exp(-582/25)/10 + \exp(-873/25)/10 + \sin(291/25)/10, \cos(233/20)/10$
 $- \exp(-233/10)/10 + \exp(-699/20)/10 + \sin(233/20)/10, \cos(583/50)/10 - \exp(-$
 $583/25)/10 + \exp(-1749/50)/10 + \sin(583/50)/10, \cos(1167/100)/10 - \exp(-1167/50)/10$
 $+ \exp(-3501/100)/10 + \sin(1167/100)/10, \cos(292/25)/10 - \exp(-584/25)/10 + \exp(-$
 $876/25)/10 + \sin(292/25)/10, \cos(1169/100)/10 - \exp(-1169/50)/10 + \exp(-$
 $3507/100)/10 + \sin(1169/100)/10, \cos(117/10)/10 - \exp(-117/5)/10 + \exp(-351/10)/10$
 $+ \sin(117/10)/10, \cos(1171/100)/10 - \exp(-1171/50)/10 + \exp(-3513/100)/10 +$
 $\sin(1171/100)/10, \cos(293/25)/10 - \exp(-586/25)/10 + \exp(-879/25)/10 +$
 $\sin(293/25)/10, \cos(1173/100)/10 - \exp(-1173/50)/10 + \exp(-3519/100)/10 +$
 $\sin(1173/100)/10, \cos(587/50)/10 - \exp(-587/25)/10 + \exp(-1761/50)/10 +$
 $\sin(587/50)/10, \cos(47/4)/10 - \exp(-47/2)/10 + \exp(-141/4)/10 + \sin(47/4)/10,$
 $\cos(294/25)/10 - \exp(-588/25)/10 + \exp(-882/25)/10 + \sin(294/25)/10,$
 $\cos(1177/100)/10 - \exp(-1177/50)/10 + \exp(-3531/100)/10 + \sin(1177/100)/10,$
 $\cos(589/50)/10 - \exp(-589/25)/10 + \exp(-1767/50)/10 + \sin(589/50)/10,$
 $\cos(1179/100)/10 - \exp(-1179/50)/10 + \exp(-3537/100)/10 + \sin(1179/100)/10,$
 $\cos(59/5)/10 - \exp(-118/5)/10 + \exp(-177/5)/10 + \sin(59/5)/10, \cos(1181/100)/10 -$
 $\exp(-1181/50)/10 + \exp(-3543/100)/10 + \sin(1181/100)/10, \cos(591/50)/10 - \exp(-$

$$\begin{aligned}
& 591/25)/10 + \exp(-1773/50)/10 + \sin(591/50)/10, \cos(1183/100)/10 - \exp(-1183/50)/10 \\
& + \exp(-3549/100)/10 + \sin(1183/100)/10, \cos(296/25)/10 - \exp(-592/25)/10 + \exp(-888/25)/10 + \sin(296/25)/10, \cos(237/20)/10 - \exp(-237/10)/10 + \exp(-711/20)/10 + \\
& \sin(237/20)/10, \cos(593/50)/10 - \exp(-593/25)/10 + \exp(-1779/50)/10 + \sin(593/50)/10, \cos(1187/100)/10 - \exp(-1187/50)/10 + \exp(-3561/100)/10 + \\
& \sin(1187/100)/10, \cos(297/25)/10 - \exp(-594/25)/10 + \exp(-891/25)/10 + \sin(297/25)/10, \cos(1189/100)/10 - \exp(-1189/50)/10 + \exp(-3567/100)/10 + \\
& \sin(1189/100)/10, \cos(119/10)/10 - \exp(-119/5)/10 + \exp(-357/10)/10 + \sin(119/10)/10, \cos(1191/100)/10 - \exp(-1191/50)/10 + \exp(-3573/100)/10 + \\
& \sin(1191/100)/10, \cos(298/25)/10 - \exp(-596/25)/10 + \exp(-894/25)/10 + \sin(298/25)/10, \cos(1193/100)/10 - \exp(-1193/50)/10 + \exp(-3579/100)/10 + \\
& \sin(1193/100)/10, \cos(597/50)/10 - \exp(-597/25)/10 + \exp(-1791/50)/10 + \sin(597/50)/10, \cos(239/20)/10 - \exp(-239/10)/10 + \exp(-717/20)/10 + \\
& \sin(239/20)/10, \cos(299/25)/10 - \exp(-598/25)/10 + \exp(-897/25)/10 + \sin(299/25)/10, \cos(1197/100)/10 - \exp(-1197/50)/10 + \exp(-3591/100)/10 + \\
& \sin(1197/100)/10, \cos(599/50)/10 - \exp(-599/25)/10 + \exp(-1797/50)/10 + \sin(599/50)/10, \cos(1199/100)/10 - \exp(-1199/50)/10 + \exp(-3597/100)/10 + \\
& \sin(1199/100)/10, \cos(12)/10 - \exp(-24)/10 + \exp(-36)/10 + \sin(12)/10, \cos(1201/100)/10 - \exp(-1201/50)/10 + \exp(-3603/100)/10 + \sin(1201/100)/10, \\
& \cos(601/50)/10 - \exp(-601/25)/10 + \exp(-1803/50)/10 + \sin(601/50)/10, \cos(1203/100)/10 - \exp(-1203/50)/10 + \exp(-3609/100)/10 + \sin(1203/100)/10, \\
& \cos(301/25)/10 - \exp(-602/25)/10 + \exp(-903/25)/10 + \sin(301/25)/10, \cos(241/20)/10 - \exp(-241/10)/10 + \exp(-723/20)/10 + \sin(241/20)/10, \cos(603/50)/10 - \exp(-603/25)/10 + \exp(-1809/50)/10 + \sin(603/50)/10, \cos(1207/100)/10 - \exp(-1207/50)/10 + \exp(-3621/100)/10 + \sin(1207/100)/10, \cos(302/25)/10 - \exp(-604/25)/10 + \exp(-906/25)/10 + \sin(302/25)/10, \cos(1209/100)/10 - \exp(-1209/50)/10 + \exp(-3627/100)/10 + \sin(1209/100)/10, \cos(121/10)/10 - \exp(-121/5)/10 + \exp(-363/10)/10 + \sin(121/10)/10, \cos(1211/100)/10 - \exp(-1211/50)/10 + \exp(-3633/100)/10 + \sin(1211/100)/10, \cos(303/25)/10 - \exp(-606/25)/10 + \exp(-909/25)/10 + \sin(303/25)/10, \cos(1213/100)/10 - \exp(-1213/50)/10 + \exp(-3639/100)/10 + \sin(1213/100)/10, \cos(607/50)/10 - \exp(-607/25)/10 + \exp(-1821/50)/10 + \sin(607/50)/10, \cos(243/20)/10 - \exp(-243/10)/10 + \exp(-729/20)/10 + \sin(243/20)/10, \cos(304/25)/10 - \exp(-608/25)/10 + \exp(-912/25)/10 + \sin(304/25)/10, \cos(1217/100)/10 - \exp(-1217/50)/10 + \exp(-3651/100)/10 + \sin(1217/100)/10, \cos(609/50)/10 - \exp(-609/25)/10 + \exp(-1827/50)/10 + \sin(609/50)/10, \cos(1219/100)/10 - \exp(-1219/50)/10 + \exp(-3657/100)/10 + \sin(1219/100)/10, \cos(61/5)/10 - \exp(-122/5)/10 + \exp(-183/5)/10 + \sin(61/5)/10, \cos(1221/100)/10 - \exp(-1221/50)/10 + \exp(-3663/100)/10 + \sin(1221/100)/10, \cos(611/50)/10 - \exp(-611/25)/10 + \exp(-1833/50)/10 + \sin(611/50)/10, \cos(1223/100)/10 - \exp(-1223/50)/10 + \exp(-3669/100)/10 + \sin(1223/100)/10, \cos(306/25)/10 - \exp(-612/25)/10 + \exp(-918/25)/10 + \sin(306/25)/10, \cos(49/4)/10 - \exp(-49/2)/10 + \exp(-147/4)/10 + \sin(49/4)/10, \cos(613/50)/10 - \exp(-613/25)/10 + \exp(-1839/50)/10 + \sin(613/50)/10, \cos(1227/100)/10 - \exp(-1227/50)/10 + \exp(-3681/100)/10 + \sin(1227/100)/10, \cos(307/25)/10 - \exp(-614/25)/10 + \exp(-921/25)/10 + \sin(307/25)/10, \cos(1229/100)/10 - \exp(-1229/50)/10 + \exp(-3687/100)/10 + \sin(1229/100)/10, \cos(123/10)/10 - \exp(-123/5)/10 + \exp(-369/10)/10 + \sin(123/10)/10, \cos(1231/100)/10 - \exp(-1231/50)/10 + \exp(-3693/100)/10 + \sin(1231/100)/10, \cos(308/25)/10 - \exp(-616/25)/10 + \exp(-924/25)/10 + \sin(308/25)/10, \cos(1233/100)/10 - \exp(-1233/50)/10 + \exp(-3699/100)/10 + \sin(1233/100)/10, \cos(617/50)/10 - \exp(-617/25)/10 + \exp(-1851/50)/10 + \sin(617/50)/10, \cos(247/20)/10 - \exp(-247/10)/10 + \exp(-741/20)/10 + \sin(247/20)/10, \cos(309/25)/10 - \exp(-618/25)/10 + \exp(-927/25)/10 + \sin(309/25)/10, \cos(1237/100)/10 - \exp(-1237/50)/10 + \exp(-3711/100)/10 + \sin(1237/100)/10, \cos(619/50)/10 - \exp(-619/25)/10 + \exp(-1857/50)/10 + \sin(619/50)/10, \cos(1239/100)/10 - \exp(-1239/50)/10 + \exp(-3717/100)/10 +
\end{aligned}$$

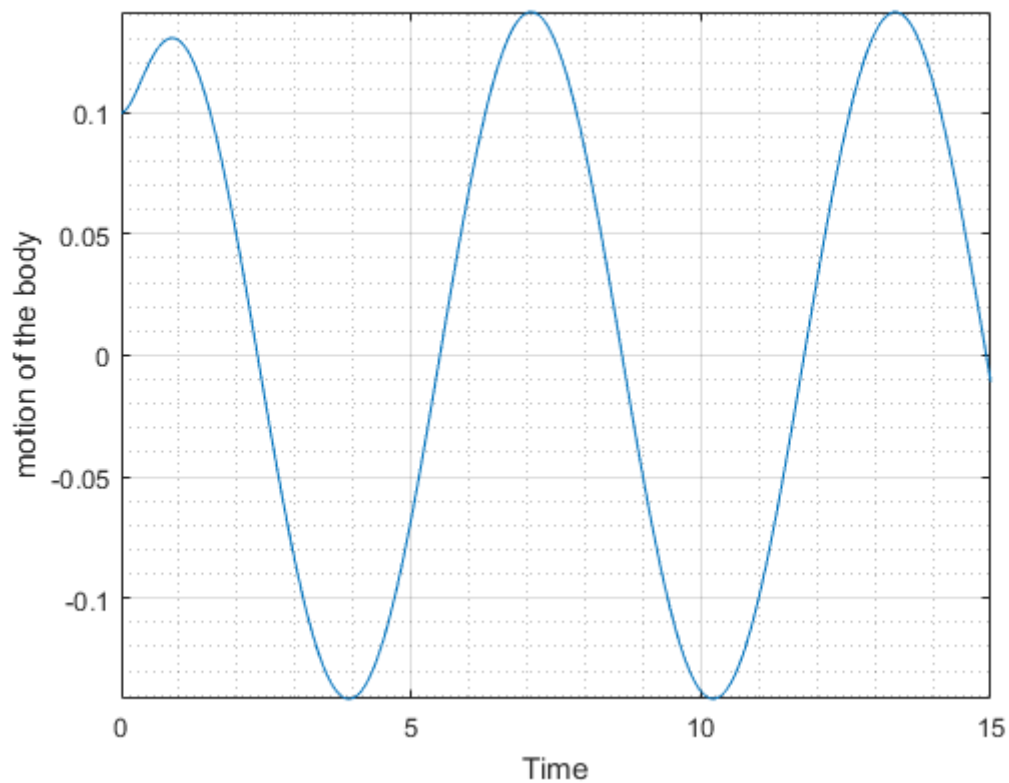
$\sin(1239/100)/10, \cos(62/5)/10 - \exp(-124/5)/10 + \exp(-186/5)/10 + \sin(62/5)/10,$
 $\cos(1241/100)/10 - \exp(-1241/50)/10 + \exp(-3723/100)/10 + \sin(1241/100)/10,$
 $\cos(621/50)/10 - \exp(-621/25)/10 + \exp(-1863/50)/10 + \sin(621/50)/10,$
 $\cos(1243/100)/10 - \exp(-1243/50)/10 + \exp(-3729/100)/10 + \sin(1243/100)/10,$
 $\cos(311/25)/10 - \exp(-622/25)/10 + \exp(-933/25)/10 + \sin(311/25)/10, \cos(249/20)/10$
 $- \exp(-249/10)/10 + \exp(-747/20)/10 + \sin(249/20)/10, \cos(623/50)/10 - \exp(-$
 $623/25)/10 + \exp(-1869/50)/10 + \sin(623/50)/10, \cos(1247/100)/10 - \exp(-1247/50)/10$
 $+ \exp(-3741/100)/10 + \sin(1247/100)/10, \cos(312/25)/10 - \exp(-624/25)/10 + \exp(-$
 $936/25)/10 + \sin(312/25)/10, \cos(1249/100)/10 - \exp(-1249/50)/10 + \exp(-$
 $3747/100)/10 + \sin(1249/100)/10, \cos(25/2)/10 - \exp(-25)/10 + \exp(-75/2)/10 +$
 $\sin(25/2)/10, \cos(1251/100)/10 - \exp(-1251/50)/10 + \exp(-3753/100)/10 +$
 $\sin(1251/100)/10, \cos(313/25)/10 - \exp(-626/25)/10 + \exp(-939/25)/10 +$
 $\sin(313/25)/10, \cos(1253/100)/10 - \exp(-1253/50)/10 + \exp(-3759/100)/10 +$
 $\sin(1253/100)/10, \cos(627/50)/10 - \exp(-627/25)/10 + \exp(-1881/50)/10 +$
 $\sin(627/50)/10, \cos(251/20)/10 - \exp(-251/10)/10 + \exp(-753/20)/10 +$
 $\sin(251/20)/10, \cos(314/25)/10 - \exp(-628/25)/10 + \exp(-942/25)/10 +$
 $\sin(314/25)/10, \cos(1257/100)/10 - \exp(-1257/50)/10 + \exp(-3771/100)/10 +$
 $\sin(1257/100)/10, \cos(629/50)/10 - \exp(-629/25)/10 + \exp(-1887/50)/10 +$
 $\sin(629/50)/10, \cos(1259/100)/10 - \exp(-1259/50)/10 + \exp(-3777/100)/10 +$
 $\sin(1259/100)/10, \cos(63/5)/10 - \exp(-126/5)/10 + \exp(-189/5)/10 + \sin(63/5)/10,$
 $\cos(1261/100)/10 - \exp(-1261/50)/10 + \exp(-3783/100)/10 + \sin(1261/100)/10,$
 $\cos(631/50)/10 - \exp(-631/25)/10 + \exp(-1893/50)/10 + \sin(631/50)/10,$
 $\cos(1263/100)/10 - \exp(-1263/50)/10 + \exp(-3789/100)/10 + \sin(1263/100)/10,$
 $\cos(316/25)/10 - \exp(-632/25)/10 + \exp(-948/25)/10 + \sin(316/25)/10, \cos(253/20)/10$
 $- \exp(-253/10)/10 + \exp(-759/20)/10 + \sin(253/20)/10, \cos(633/50)/10 - \exp(-$
 $633/25)/10 + \exp(-1899/50)/10 + \sin(633/50)/10, \cos(1267/100)/10 - \exp(-1267/50)/10$
 $+ \exp(-3801/100)/10 + \sin(1267/100)/10, \cos(317/25)/10 - \exp(-634/25)/10 + \exp(-$
 $951/25)/10 + \sin(317/25)/10, \cos(1269/100)/10 - \exp(-1269/50)/10 + \exp(-$
 $3807/100)/10 + \sin(1269/100)/10, \cos(127/10)/10 - \exp(-127/5)/10 + \exp(-381/10)/10$
 $+ \sin(127/10)/10, \cos(1271/100)/10 - \exp(-1271/50)/10 + \exp(-3813/100)/10 +$
 $\sin(1271/100)/10, \cos(318/25)/10 - \exp(-636/25)/10 + \exp(-954/25)/10 +$
 $\sin(318/25)/10, \cos(1273/100)/10 - \exp(-1273/50)/10 + \exp(-3819/100)/10 +$
 $\sin(1273/100)/10, \cos(637/50)/10 - \exp(-637/25)/10 + \exp(-1911/50)/10 +$
 $\sin(637/50)/10, \cos(51/4)/10 - \exp(-51/2)/10 + \exp(-153/4)/10 + \sin(51/4)/10,$
 $\cos(319/25)/10 - \exp(-638/25)/10 + \exp(-957/25)/10 + \sin(319/25)/10,$
 $\cos(1277/100)/10 - \exp(-1277/50)/10 + \exp(-3831/100)/10 + \sin(1277/100)/10,$
 $\cos(639/50)/10 - \exp(-639/25)/10 + \exp(-1917/50)/10 + \sin(639/50)/10,$
 $\cos(1279/100)/10 - \exp(-1279/50)/10 + \exp(-3837/100)/10 + \sin(1279/100)/10,$
 $\cos(64/5)/10 - \exp(-128/5)/10 + \exp(-192/5)/10 + \sin(64/5)/10, \cos(1281/100)/10 -$
 $\exp(-1281/50)/10 + \exp(-3843/100)/10 + \sin(1281/100)/10, \cos(641/50)/10 - \exp(-$
 $641/25)/10 + \exp(-1923/50)/10 + \sin(641/50)/10, \cos(1283/100)/10 - \exp(-1283/50)/10$
 $+ \exp(-3849/100)/10 + \sin(1283/100)/10, \cos(321/25)/10 - \exp(-642/25)/10 + \exp(-$
 $963/25)/10 + \sin(321/25)/10, \cos(257/20)/10 - \exp(-257/10)/10 + \exp(-771/20)/10 +$
 $\sin(257/20)/10, \cos(643/50)/10 - \exp(-643/25)/10 + \exp(-1929/50)/10 +$
 $\sin(643/50)/10, \cos(1287/100)/10 - \exp(-1287/50)/10 + \exp(-3861/100)/10 +$
 $\sin(1287/100)/10, \cos(322/25)/10 - \exp(-644/25)/10 + \exp(-966/25)/10 +$
 $\sin(322/25)/10, \cos(1289/100)/10 - \exp(-1289/50)/10 + \exp(-3867/100)/10 +$
 $\sin(1289/100)/10, \cos(129/10)/10 - \exp(-129/5)/10 + \exp(-387/10)/10 +$
 $\sin(129/10)/10, \cos(1291/100)/10 - \exp(-1291/50)/10 + \exp(-3873/100)/10 +$
 $\sin(1291/100)/10, \cos(323/25)/10 - \exp(-646/25)/10 + \exp(-969/25)/10 +$
 $\sin(323/25)/10, \cos(1293/100)/10 - \exp(-1293/50)/10 + \exp(-3879/100)/10 +$
 $\sin(1293/100)/10, \cos(647/50)/10 - \exp(-647/25)/10 + \exp(-1941/50)/10 +$
 $\sin(647/50)/10, \cos(259/20)/10 - \exp(-259/10)/10 + \exp(-777/20)/10 +$
 $\sin(259/20)/10, \cos(324/25)/10 - \exp(-648/25)/10 + \exp(-972/25)/10 +$
 $\sin(324/25)/10, \cos(1297/100)/10 - \exp(-1297/50)/10 + \exp(-3891/100)/10 +$

$\sin(1297/100)/10, \cos(649/50)/10 - \exp(-649/25)/10 + \exp(-1947/50)/10 +$
 $\sin(649/50)/10, \cos(1299/100)/10 - \exp(-1299/50)/10 + \exp(-3897/100)/10 +$
 $\sin(1299/100)/10, \cos(13)/10 - \exp(-26)/10 + \exp(-39)/10 + \sin(13)/10,$
 $\cos(1301/100)/10 - \exp(-1301/50)/10 + \exp(-3903/100)/10 + \sin(1301/100)/10,$
 $\cos(651/50)/10 - \exp(-651/25)/10 + \exp(-1953/50)/10 + \sin(651/50)/10,$
 $\cos(1303/100)/10 - \exp(-1303/50)/10 + \exp(-3909/100)/10 + \sin(1303/100)/10,$
 $\cos(326/25)/10 - \exp(-652/25)/10 + \exp(-978/25)/10 + \sin(326/25)/10, \cos(261/20)/10$
 $- \exp(-261/10)/10 + \exp(-783/20)/10 + \sin(261/20)/10, \cos(653/50)/10 - \exp(-$
 $653/25)/10 + \exp(-1959/50)/10 + \sin(653/50)/10, \cos(1307/100)/10 - \exp(-1307/50)/10$
 $+ \exp(-3921/100)/10 + \sin(1307/100)/10, \cos(327/25)/10 - \exp(-654/25)/10 + \exp(-$
 $981/25)/10 + \sin(327/25)/10, \cos(1309/100)/10 - \exp(-1309/50)/10 + \exp(-$
 $3927/100)/10 + \sin(1309/100)/10, \cos(131/10)/10 - \exp(-131/5)/10 + \exp(-393/10)/10$
 $+ \sin(131/10)/10, \cos(1311/100)/10 - \exp(-1311/50)/10 + \exp(-3933/100)/10 +$
 $\sin(1311/100)/10, \cos(328/25)/10 - \exp(-656/25)/10 + \exp(-984/25)/10 +$
 $\sin(328/25)/10, \cos(1313/100)/10 - \exp(-1313/50)/10 + \exp(-3939/100)/10 +$
 $\sin(1313/100)/10, \cos(657/50)/10 - \exp(-657/25)/10 + \exp(-1971/50)/10 +$
 $\sin(657/50)/10, \cos(263/20)/10 - \exp(-263/10)/10 + \exp(-789/20)/10 +$
 $\sin(263/20)/10, \cos(329/25)/10 - \exp(-658/25)/10 + \exp(-987/25)/10 +$
 $\sin(329/25)/10, \cos(1317/100)/10 - \exp(-1317/50)/10 + \exp(-3951/100)/10 +$
 $\sin(1317/100)/10, \cos(659/50)/10 - \exp(-659/25)/10 + \exp(-1977/50)/10 +$
 $\sin(659/50)/10, \cos(1319/100)/10 - \exp(-1319/50)/10 + \exp(-3957/100)/10 +$
 $\sin(1319/100)/10, \cos(66/5)/10 - \exp(-132/5)/10 + \exp(-198/5)/10 + \sin(66/5)/10,$
 $\cos(1321/100)/10 - \exp(-1321/50)/10 + \exp(-3963/100)/10 + \sin(1321/100)/10,$
 $\cos(661/50)/10 - \exp(-661/25)/10 + \exp(-1983/50)/10 + \sin(661/50)/10,$
 $\cos(1323/100)/10 - \exp(-1323/50)/10 + \exp(-3969/100)/10 + \sin(1323/100)/10,$
 $\cos(331/25)/10 - \exp(-662/25)/10 + \exp(-993/25)/10 + \sin(331/25)/10, \cos(53/4)/10 -$
 $\exp(-53/2)/10 + \exp(-159/4)/10 + \sin(53/4)/10, \cos(663/50)/10 - \exp(-663/25)/10 +$
 $\exp(-1989/50)/10 + \sin(663/50)/10, \cos(1327/100)/10 - \exp(-1327/50)/10 + \exp(-$
 $3981/100)/10 + \sin(1327/100)/10, \cos(332/25)/10 - \exp(-664/25)/10 + \exp(-996/25)/10$
 $+ \sin(332/25)/10, \cos(1329/100)/10 - \exp(-1329/50)/10 + \exp(-3987/100)/10 +$
 $\sin(1329/100)/10, \cos(133/10)/10 - \exp(-133/5)/10 + \exp(-399/10)/10 +$
 $\sin(133/10)/10, \cos(1331/100)/10 - \exp(-1331/50)/10 + \exp(-3993/100)/10 +$
 $\sin(1331/100)/10, \cos(333/25)/10 - \exp(-666/25)/10 + \exp(-999/25)/10 +$
 $\sin(333/25)/10, \cos(1333/100)/10 - \exp(-1333/50)/10 + \exp(-3999/100)/10 +$
 $\sin(1333/100)/10, \cos(667/50)/10 - \exp(-667/25)/10 + \exp(-2001/50)/10 +$
 $\sin(667/50)/10, \cos(267/20)/10 - \exp(-267/10)/10 + \exp(-801/20)/10 +$
 $\sin(267/20)/10, \cos(334/25)/10 - \exp(-668/25)/10 + \exp(-1002/25)/10 +$
 $\sin(334/25)/10, \cos(1337/100)/10 - \exp(-1337/50)/10 + \exp(-4011/100)/10 +$
 $\sin(1337/100)/10, \cos(669/50)/10 - \exp(-669/25)/10 + \exp(-2007/50)/10 +$
 $\sin(669/50)/10, \cos(1339/100)/10 - \exp(-1339/50)/10 + \exp(-4017/100)/10 +$
 $\sin(1339/100)/10, \cos(67/5)/10 - \exp(-134/5)/10 + \exp(-201/5)/10 + \sin(67/5)/10,$
 $\cos(1341/100)/10 - \exp(-1341/50)/10 + \exp(-4023/100)/10 + \sin(1341/100)/10,$
 $\cos(671/50)/10 - \exp(-671/25)/10 + \exp(-2013/50)/10 + \sin(671/50)/10,$
 $\cos(1343/100)/10 - \exp(-1343/50)/10 + \exp(-4029/100)/10 + \sin(1343/100)/10,$
 $\cos(336/25)/10 - \exp(-672/25)/10 + \exp(-1008/25)/10 + \sin(336/25)/10,$
 $\cos(269/20)/10 - \exp(-269/10)/10 + \exp(-807/20)/10 + \sin(269/20)/10, \cos(673/50)/10$
 $- \exp(-673/25)/10 + \exp(-2019/50)/10 + \sin(673/50)/10, \cos(1347/100)/10 - \exp(-$
 $1347/50)/10 + \exp(-4041/100)/10 + \sin(1347/100)/10, \cos(337/25)/10 - \exp(-$
 $674/25)/10 + \exp(-1011/25)/10 + \sin(337/25)/10, \cos(1349/100)/10 - \exp(-1349/50)/10$
 $+ \exp(-4047/100)/10 + \sin(1349/100)/10, \cos(27/2)/10 - \exp(-27)/10 + \exp(-81/2)/10$
 $+ \sin(27/2)/10, \cos(1351/100)/10 - \exp(-1351/50)/10 + \exp(-4053/100)/10 +$
 $\sin(1351/100)/10, \cos(338/25)/10 - \exp(-676/25)/10 + \exp(-1014/25)/10 +$
 $\sin(338/25)/10, \cos(1353/100)/10 - \exp(-1353/50)/10 + \exp(-4059/100)/10 +$
 $\sin(1353/100)/10, \cos(677/50)/10 - \exp(-677/25)/10 + \exp(-2031/50)/10 +$
 $\sin(677/50)/10, \cos(271/20)/10 - \exp(-271/10)/10 + \exp(-813/20)/10 +$

$\sin(271/20)/10, \cos(339/25)/10 - \exp(-678/25)/10 + \exp(-1017/25)/10 +$
 $\sin(339/25)/10, \cos(1357/100)/10 - \exp(-1357/50)/10 + \exp(-4071/100)/10 +$
 $\sin(1357/100)/10, \cos(679/50)/10 - \exp(-679/25)/10 + \exp(-2037/50)/10 +$
 $\sin(679/50)/10, \cos(1359/100)/10 - \exp(-1359/50)/10 + \exp(-4077/100)/10 +$
 $\sin(1359/100)/10, \cos(68/5)/10 - \exp(-136/5)/10 + \exp(-204/5)/10 + \sin(68/5)/10,$
 $\cos(1361/100)/10 - \exp(-1361/50)/10 + \exp(-4083/100)/10 + \sin(1361/100)/10,$
 $\cos(681/50)/10 - \exp(-681/25)/10 + \exp(-2043/50)/10 + \sin(681/50)/10,$
 $\cos(1363/100)/10 - \exp(-1363/50)/10 + \exp(-4089/100)/10 + \sin(1363/100)/10,$
 $\cos(341/25)/10 - \exp(-682/25)/10 + \exp(-1023/25)/10 + \sin(341/25)/10,$
 $\cos(273/20)/10 - \exp(-273/10)/10 + \exp(-819/20)/10 + \sin(273/20)/10, \cos(683/50)/10$
 $- \exp(-683/25)/10 + \exp(-2049/50)/10 + \sin(683/50)/10, \cos(1367/100)/10 - \exp(-$
 $1367/50)/10 + \exp(-4101/100)/10 + \sin(1367/100)/10, \cos(342/25)/10 - \exp(-$
 $684/25)/10 + \exp(-1026/25)/10 + \sin(342/25)/10, \cos(1369/100)/10 - \exp(-1369/50)/10$
 $+ \exp(-4107/100)/10 + \sin(1369/100)/10, \cos(137/10)/10 - \exp(-137/5)/10 + \exp(-$
 $411/10)/10 + \sin(137/10)/10, \cos(1371/100)/10 - \exp(-1371/50)/10 + \exp(-$
 $4113/100)/10 + \sin(1371/100)/10, \cos(343/25)/10 - \exp(-686/25)/10 + \exp(-$
 $1029/25)/10 + \sin(343/25)/10, \cos(1373/100)/10 - \exp(-1373/50)/10 + \exp(-$
 $4119/100)/10 + \sin(1373/100)/10, \cos(687/50)/10 - \exp(-687/25)/10 + \exp(-$
 $2061/50)/10 + \sin(687/50)/10, \cos(55/4)/10 - \exp(-55/2)/10 + \exp(-165/4)/10 +$
 $\sin(55/4)/10, \cos(344/25)/10 - \exp(-688/25)/10 + \exp(-1032/25)/10 + \sin(344/25)/10,$
 $\cos(1377/100)/10 - \exp(-1377/50)/10 + \exp(-4131/100)/10 + \sin(1377/100)/10,$
 $\cos(689/50)/10 - \exp(-689/25)/10 + \exp(-2067/50)/10 + \sin(689/50)/10,$
 $\cos(1379/100)/10 - \exp(-1379/50)/10 + \exp(-4137/100)/10 + \sin(1379/100)/10,$
 $\cos(69/5)/10 - \exp(-138/5)/10 + \exp(-207/5)/10 + \sin(69/5)/10, \cos(1381/100)/10 -$
 $\exp(-1381/50)/10 + \exp(-4143/100)/10 + \sin(1381/100)/10, \cos(691/50)/10 - \exp(-$
 $691/25)/10 + \exp(-2073/50)/10 + \sin(691/50)/10, \cos(1383/100)/10 - \exp(-1383/50)/10$
 $+ \exp(-4149/100)/10 + \sin(1383/100)/10, \cos(346/25)/10 - \exp(-692/25)/10 + \exp(-$
 $1038/25)/10 + \sin(346/25)/10, \cos(277/20)/10 - \exp(-277/10)/10 + \exp(-831/20)/10 +$
 $\sin(277/20)/10, \cos(693/50)/10 - \exp(-693/25)/10 + \exp(-2079/50)/10 +$
 $\sin(693/50)/10, \cos(1387/100)/10 - \exp(-1387/50)/10 + \exp(-4161/100)/10 +$
 $\sin(1387/100)/10, \cos(347/25)/10 - \exp(-694/25)/10 + \exp(-1041/25)/10 +$
 $\sin(347/25)/10, \cos(1389/100)/10 - \exp(-1389/50)/10 + \exp(-4167/100)/10 +$
 $\sin(1389/100)/10, \cos(139/10)/10 - \exp(-139/5)/10 + \exp(-417/10)/10 +$
 $\sin(139/10)/10, \cos(1391/100)/10 - \exp(-1391/50)/10 + \exp(-4173/100)/10 +$
 $\sin(1391/100)/10, \cos(348/25)/10 - \exp(-696/25)/10 + \exp(-1044/25)/10 +$
 $\sin(348/25)/10, \cos(1393/100)/10 - \exp(-1393/50)/10 + \exp(-4179/100)/10 +$
 $\sin(1393/100)/10, \cos(697/50)/10 - \exp(-697/25)/10 + \exp(-2091/50)/10 +$
 $\sin(697/50)/10, \cos(279/20)/10 - \exp(-279/10)/10 + \exp(-837/20)/10 +$
 $\sin(279/20)/10, \cos(349/25)/10 - \exp(-698/25)/10 + \exp(-1047/25)/10 +$
 $\sin(349/25)/10, \cos(1397/100)/10 - \exp(-1397/50)/10 + \exp(-4191/100)/10 +$
 $\sin(1397/100)/10, \cos(699/50)/10 - \exp(-699/25)/10 + \exp(-2097/50)/10 +$
 $\sin(699/50)/10, \cos(1399/100)/10 - \exp(-1399/50)/10 + \exp(-4197/100)/10 +$
 $\sin(1399/100)/10, \cos(14)/10 - \exp(-28)/10 + \exp(-42)/10 + \sin(14)/10,$
 $\cos(1401/100)/10 - \exp(-1401/50)/10 + \exp(-4203/100)/10 + \sin(1401/100)/10,$
 $\cos(701/50)/10 - \exp(-701/25)/10 + \exp(-2103/50)/10 + \sin(701/50)/10,$
 $\cos(1403/100)/10 - \exp(-1403/50)/10 + \exp(-4209/100)/10 + \sin(1403/100)/10,$
 $\cos(351/25)/10 - \exp(-702/25)/10 + \exp(-1053/25)/10 + \sin(351/25)/10,$
 $\cos(281/20)/10 - \exp(-281/10)/10 + \exp(-843/20)/10 + \sin(281/20)/10, \cos(703/50)/10$
 $- \exp(-703/25)/10 + \exp(-2109/50)/10 + \sin(703/50)/10, \cos(1407/100)/10 - \exp(-$
 $1407/50)/10 + \exp(-4221/100)/10 + \sin(1407/100)/10, \cos(352/25)/10 - \exp(-$
 $704/25)/10 + \exp(-1056/25)/10 + \sin(352/25)/10, \cos(1409/100)/10 - \exp(-1409/50)/10$
 $+ \exp(-4227/100)/10 + \sin(1409/100)/10, \cos(141/10)/10 - \exp(-141/5)/10 + \exp(-$
 $423/10)/10 + \sin(141/10)/10, \cos(1411/100)/10 - \exp(-1411/50)/10 + \exp(-$
 $4233/100)/10 + \sin(1411/100)/10, \cos(353/25)/10 - \exp(-706/25)/10 + \exp(-$
 $1059/25)/10 + \sin(353/25)/10, \cos(1413/100)/10 - \exp(-1413/50)/10 + \exp(-$

$4239/100)/10 + \sin(1413/100)/10, \cos(707/50)/10 - \exp(-707/25)/10 + \exp(-2121/50)/10 + \sin(707/50)/10, \cos(283/20)/10 - \exp(-283/10)/10 + \exp(-849/20)/10 + \sin(283/20)/10, \cos(354/25)/10 - \exp(-708/25)/10 + \exp(-1062/25)/10 + \sin(354/25)/10, \cos(1417/100)/10 - \exp(-1417/50)/10 + \exp(-4251/100)/10 + \sin(1417/100)/10, \cos(709/50)/10 - \exp(-709/25)/10 + \exp(-2127/50)/10 + \sin(709/50)/10, \cos(1419/100)/10 - \exp(-1419/50)/10 + \exp(-4257/100)/10 + \sin(1419/100)/10, \cos(71/5)/10 - \exp(-142/5)/10 + \exp(-213/5)/10 + \sin(71/5)/10, \cos(1421/100)/10 - \exp(-1421/50)/10 + \exp(-4263/100)/10 + \sin(1421/100)/10, \cos(711/50)/10 - \exp(-711/25)/10 + \exp(-2133/50)/10 + \sin(711/50)/10, \cos(1423/100)/10 - \exp(-1423/50)/10 + \exp(-4269/100)/10 + \sin(1423/100)/10, \cos(356/25)/10 - \exp(-712/25)/10 + \exp(-1068/25)/10 + \sin(356/25)/10, \cos(57/4)/10 - \exp(-57/2)/10 + \exp(-171/4)/10 + \sin(57/4)/10, \cos(713/50)/10 - \exp(-713/25)/10 + \exp(-2139/50)/10 + \sin(713/50)/10, \cos(1427/100)/10 - \exp(-1427/50)/10 + \exp(-4281/100)/10 + \sin(1427/100)/10, \cos(357/25)/10 - \exp(-714/25)/10 + \exp(-1071/25)/10 + \sin(357/25)/10, \cos(1429/100)/10 - \exp(-1429/50)/10 + \exp(-4287/100)/10 + \sin(1429/100)/10, \cos(143/10)/10 - \exp(-143/5)/10 + \exp(-429/10)/10 + \sin(143/10)/10, \cos(1431/100)/10 - \exp(-1431/50)/10 + \exp(-4293/100)/10 + \sin(1431/100)/10, \cos(358/25)/10 - \exp(-716/25)/10 + \exp(-1074/25)/10 + \sin(358/25)/10, \cos(1433/100)/10 - \exp(-1433/50)/10 + \exp(-4299/100)/10 + \sin(1433/100)/10, \cos(717/50)/10 - \exp(-717/25)/10 + \exp(-2151/50)/10 + \sin(717/50)/10, \cos(287/20)/10 - \exp(-287/10)/10 + \exp(-861/20)/10 + \sin(287/20)/10, \cos(359/25)/10 - \exp(-718/25)/10 + \exp(-1077/25)/10 + \sin(359/25)/10, \cos(1437/100)/10 - \exp(-1437/50)/10 + \exp(-4311/100)/10 + \sin(1437/100)/10, \cos(719/50)/10 - \exp(-719/25)/10 + \exp(-2157/50)/10 + \sin(719/50)/10, \cos(1439/100)/10 - \exp(-1439/50)/10 + \exp(-4317/100)/10 + \sin(1439/100)/10, \cos(72/5)/10 - \exp(-144/5)/10 + \exp(-216/5)/10 + \sin(72/5)/10, \cos(1441/100)/10 - \exp(-1441/50)/10 + \exp(-4323/100)/10 + \sin(1441/100)/10, \cos(721/50)/10 - \exp(-721/25)/10 + \exp(-2163/50)/10 + \sin(721/50)/10, \cos(1443/100)/10 - \exp(-1443/50)/10 + \exp(-4329/100)/10 + \sin(1443/100)/10, \cos(361/25)/10 - \exp(-722/25)/10 + \exp(-1083/25)/10 + \sin(361/25)/10, \cos(289/20)/10 - \exp(-289/10)/10 + \exp(-867/20)/10 + \sin(289/20)/10, \cos(723/50)/10 - \exp(-723/25)/10 + \exp(-2169/50)/10 + \sin(723/50)/10, \cos(1447/100)/10 - \exp(-1447/50)/10 + \exp(-4341/100)/10 + \sin(1447/100)/10, \cos(362/25)/10 - \exp(-724/25)/10 + \exp(-1086/25)/10 + \sin(362/25)/10, \cos(1449/100)/10 - \exp(-1449/50)/10 + \exp(-4347/100)/10 + \sin(1449/100)/10, \cos(29/2)/10 - \exp(-29)/10 + \exp(-87/2)/10 + \sin(29/2)/10, \cos(1451/100)/10 - \exp(-1451/50)/10 + \exp(-4353/100)/10 + \sin(1451/100)/10, \cos(363/25)/10 - \exp(-726/25)/10 + \exp(-1089/25)/10 + \sin(363/25)/10, \cos(1453/100)/10 - \exp(-1453/50)/10 + \exp(-4359/100)/10 + \sin(1453/100)/10, \cos(727/50)/10 - \exp(-727/25)/10 + \exp(-2181/50)/10 + \sin(727/50)/10, \cos(291/20)/10 - \exp(-291/10)/10 + \exp(-873/20)/10 + \sin(291/20)/10, \cos(364/25)/10 - \exp(-728/25)/10 + \exp(-1092/25)/10 + \sin(364/25)/10, \cos(1457/100)/10 - \exp(-1457/50)/10 + \exp(-4371/100)/10 + \sin(1457/100)/10, \cos(729/50)/10 - \exp(-729/25)/10 + \exp(-2187/50)/10 + \sin(729/50)/10, \cos(1459/100)/10 - \exp(-1459/50)/10 + \exp(-4377/100)/10 + \sin(1459/100)/10, \cos(73/5)/10 - \exp(-146/5)/10 + \exp(-219/5)/10 + \sin(73/5)/10, \cos(1461/100)/10 - \exp(-1461/50)/10 + \exp(-4383/100)/10 + \sin(1461/100)/10, \cos(731/50)/10 - \exp(-731/25)/10 + \exp(-2193/50)/10 + \sin(731/50)/10, \cos(1463/100)/10 - \exp(-1463/50)/10 + \exp(-4389/100)/10 + \sin(1463/100)/10, \cos(366/25)/10 - \exp(-732/25)/10 + \exp(-1098/25)/10 + \sin(366/25)/10, \cos(293/20)/10 - \exp(-293/10)/10 + \exp(-879/20)/10 + \sin(293/20)/10, \cos(733/50)/10 - \exp(-733/25)/10 + \exp(-2199/50)/10 + \sin(733/50)/10, \cos(1467/100)/10 - \exp(-1467/50)/10 + \exp(-4401/100)/10 + \sin(1467/100)/10, \cos(367/25)/10 - \exp(-734/25)/10 + \exp(-1101/25)/10 + \sin(367/25)/10, \cos(1469/100)/10 - \exp(-1469/50)/10 + \exp(-4407/100)/10 + \sin(1469/100)/10, \cos(147/10)/10 - \exp(-147/5)/10 + \exp(-441/10)/10 + \sin(147/10)/10, \cos(1471/100)/10 - \exp(-1471/50)/10 + \exp(-$

$4413/100)/10 + \sin(1471/100)/10, \cos(368/25)/10 - \exp(-736/25)/10 + \exp(-1104/25)/10 + \sin(368/25)/10, \cos(1473/100)/10 - \exp(-1473/50)/10 + \exp(-4419/100)/10 + \sin(1473/100)/10, \cos(737/50)/10 - \exp(-737/25)/10 + \exp(-2211/50)/10 + \sin(737/50)/10, \cos(59/4)/10 - \exp(-59/2)/10 + \exp(-177/4)/10 + \sin(59/4)/10, \cos(369/25)/10 - \exp(-738/25)/10 + \exp(-1107/25)/10 + \sin(369/25)/10, \cos(1477/100)/10 - \exp(-1477/50)/10 + \exp(-4431/100)/10 + \sin(1477/100)/10, \cos(739/50)/10 - \exp(-739/25)/10 + \exp(-2217/50)/10 + \sin(739/50)/10, \cos(1479/100)/10 - \exp(-1479/50)/10 + \exp(-4437/100)/10 + \sin(1479/100)/10, \cos(74/5)/10 - \exp(-148/5)/10 + \exp(-222/5)/10 + \sin(74/5)/10, \cos(1481/100)/10 - \exp(-1481/50)/10 + \exp(-4443/100)/10 + \sin(1481/100)/10, \cos(741/50)/10 - \exp(-741/25)/10 + \exp(-2223/50)/10 + \sin(741/50)/10, \cos(1483/100)/10 - \exp(-1483/50)/10 + \exp(-4449/100)/10 + \sin(1483/100)/10, \cos(371/25)/10 - \exp(-742/25)/10 + \exp(-1113/25)/10 + \sin(371/25)/10, \cos(297/20)/10 - \exp(-297/10)/10 + \exp(-891/20)/10 + \sin(297/20)/10, \cos(743/50)/10 - \exp(-743/25)/10 + \exp(-2229/50)/10 + \sin(743/50)/10, \cos(1487/100)/10 - \exp(-1487/50)/10 + \exp(-4461/100)/10 + \sin(1487/100)/10, \cos(372/25)/10 - \exp(-744/25)/10 + \exp(-1116/25)/10 + \sin(372/25)/10, \cos(1489/100)/10 - \exp(-1489/50)/10 + \exp(-4467/100)/10 + \sin(1489/100)/10, \cos(149/10)/10 - \exp(-149/5)/10 + \exp(-447/10)/10 + \sin(149/10)/10, \cos(1491/100)/10 - \exp(-1491/50)/10 + \exp(-4473/100)/10 + \sin(1491/100)/10, \cos(373/25)/10 - \exp(-746/25)/10 + \exp(-1119/25)/10 + \sin(373/25)/10, \cos(1493/100)/10 - \exp(-1493/50)/10 + \exp(-4479/100)/10 + \sin(1493/100)/10, \cos(747/50)/10 - \exp(-747/25)/10 + \exp(-2241/50)/10 + \sin(747/50)/10, \cos(299/20)/10 - \exp(-299/10)/10 + \exp(-897/20)/10 + \sin(299/20)/10, \cos(374/25)/10 - \exp(-748/25)/10 + \exp(-1122/25)/10 + \sin(374/25)/10, \cos(1497/100)/10 - \exp(-1497/50)/10 + \exp(-4491/100)/10 + \sin(1497/100)/10, \cos(749/50)/10 - \exp(-749/25)/10 + \exp(-2247/50)/10 + \sin(749/50)/10, \cos(1499/100)/10 - \exp(-1499/50)/10 + \exp(-4497/100)/10 + \sin(1499/100)/10, \cos(15)/10 - \exp(-30)/10 + \exp(-45)/10 + \sin(15)/10]$



Published with MATLAB® R2017a

(Q3). Write the steady-state solution of the system in form of $x = K \sin(t + a)$.

Soln: From $P.I = x = C \cos t + D \sin t$

Assume $C = K \sin a$ and $D = K \cos a$

Substituting C and D into $P.I$ or x

$$x = k \sin a (\cos t) + K \cos a (\sin t)$$

$$x = k \sin a \cos t + k \cos a \sin t$$

$$x = k (\sin a \cos t + \cos a \sin t) \quad (3i)$$

Re-arranging eqn (x)

$$x = k (\sin t \cos a - \cos t (-\sin a))$$

From Trigonometric Rules; $\sin(a) = -\sin a$ (1)

$$\cos(-a) = \cos a \quad (2)$$

Also according to Trig; $\cos t = \sin\left(\frac{\pi}{2} - t\right)$ (3)

$$\sin t = \cos\left(\frac{\pi}{2} - t\right) \quad (4)$$

Substituting the equations of (1,2,3 and 4) into eq (3i)

$$x = k\left(\cos\left(\frac{\pi}{2} - t\right)\cos(-a) - \sin\left(\frac{\pi}{2} - t\right)\sin(-a)\right) \quad (3ii)$$

Comparing eqn (3ii) with Trig rule; $\cos(a + b) = \cos a \cos b - \sin a \sin b$

$$\cos(a - b) = \cos a \cos b + \sin a \sin b \quad (3iii)$$

$$x = k\left(\cos\left(\frac{\pi}{2} - t\right) - a\right)$$

$$x = k\left(\cos\left(\frac{\pi}{2}\right) - (t + a)\right)$$

Substituting $\frac{\pi}{2} = a$ and $(t + a) = b$ into eqn (3iii)

$$\text{Becoming; } x = k\left(\cos\left(\frac{\pi}{2}\right)\cos(t + b) + \sin\left(\frac{\pi}{2}\right)\sin(t + a)\right) \quad (3iv)$$

$$\text{When } \cos\left(\frac{\pi}{2}\right) = \cos\left(\frac{180}{2}\right) = \cos(90) = 0$$

$$\sin\left(\frac{\pi}{2}\right) = \sin\left(\frac{180}{2}\right) = \sin(90) = 1$$

Substituting the values of $\cos\left(\frac{\pi}{2}\right)$ and $\sin\left(\frac{\pi}{2}\right)$ into eqn (3iv)

$$x = k\sin(t + a)$$

Hence, the steady state solution for $x = C\cos t + D\sin t$ is $x = k\sin(t + a)$

$$\text{From the particular solution } P.S = \frac{-e^{-2x}}{10} + \frac{-e^{-3x}}{10} + \frac{\cos t}{10} + \frac{\sin t}{10}$$

$$\text{But } x = \frac{e^{-3t} - e^{-2t}}{10} \text{ tends to infinity}$$

$$x = \frac{1}{10}(\cos t + \sin t)$$

$$x = \frac{1}{10}\left(\frac{\cos t \sqrt{2}}{\sqrt{2}} + \frac{\sin t \sqrt{2}}{\sqrt{2}}\right)$$

Factorizing by $\sqrt{2}$

$$x = \frac{\sqrt{2}}{10}\left(\cos t \frac{1}{\sqrt{2}} + \sin t \frac{1}{\sqrt{2}}\right)$$

Where $\frac{1}{2} = \frac{\sqrt{2}}{2} = \cos(45) = \sin(45)$

$$x = \frac{\sqrt{2}}{10}(\cos t \sin 45 + \sin t \cos 45)$$

But

$$\sin(a + b) = \sin a \cos b + \cos a \sin b$$

$$x = \frac{\sqrt{2}}{10}(\sin(t + 45))$$

$$45 = \frac{\pi}{4}$$

$$x = \frac{\sqrt{2}}{10}\left(\sin\left(t + \frac{\pi}{4}\right)\right)$$

$$x = k \sin(t + a)$$

Comparing both equations of x

$$k = \frac{\sqrt{2}}{10}$$

$$a = \frac{\pi}{4} \text{ or } 45$$