

ii) Command window

AC

clear

close all

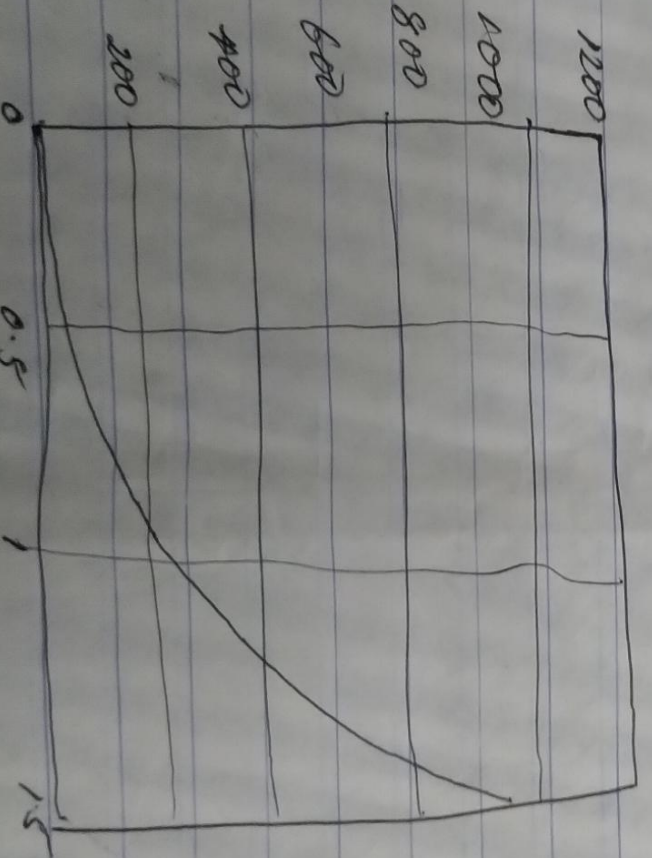
Syms t s

$$F = P1 \cdot s / (11s^2 + 15s + 1) + P2 \cdot s / (s^2 + 24s + 20) \quad (P1=13)$$

i) Laplace (F)

Simplify (ans)

Pretty ans



Graph of question

49

- (1) Visualizing the subnets on graph separately combine with
- 13 Plot (set)
 - 14 Plot (set)
 - 15 plot on
 - 16 legend ('xss', 'location', 'chess')
 - 17 legend ('yset', 'location', 'chess')

Visualizing the solution graph together code

- 18 Plot (set)
- 19 legend
- 20 Plot (set)
- 21 plot on
- 22 legend ('xss', 'yset', 'location', 'chess')

Debugger VC

1) Command window

VC

Clear

Close all

Syms + s w n k q
 $x = 4 \times \text{trap} - \text{att} \cdot 2 \times 8 \text{ms} + a \cdot 2 \times 108 (32 \times 2)$
 $F = \text{Laplace}(x, s)$
 simplify(F)
 pretty(ans)

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Question 4a

Command window

clc

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Syms n (z)

$$\text{eg } n = \text{diff}(n, z, 2) - \text{diff}(n, z) - n * n = 144 + (843) + 12.5$$

$$\text{cond} = n(0) = 5, \text{diff}(n, z, 2) = -0.5;$$

$$y_{sct} = \text{dsolve}(\text{eg } n, \text{cond})$$

$$f = 0.5 - 1.05$$

Yem = Subs(y_sct)

format yem;

grid on

legend (Yem, location: 'best')

Question 4b

1 Command window

2 clc

3 clear

4 Ans

5 Syms x(z) (yct)

6 eqant diff(yct) - xct = exp(-2*z);

7 eqn = diff(x, z) - y - exp(-z);

8 eqn = [eqn 1, eqn 2]

9 cond = (0) = 0, y(0) = 0

10 Ans = dsolve (eqn, cond)

11 x_sct(x) = Ans x

12 y_sct(x) = Ans y