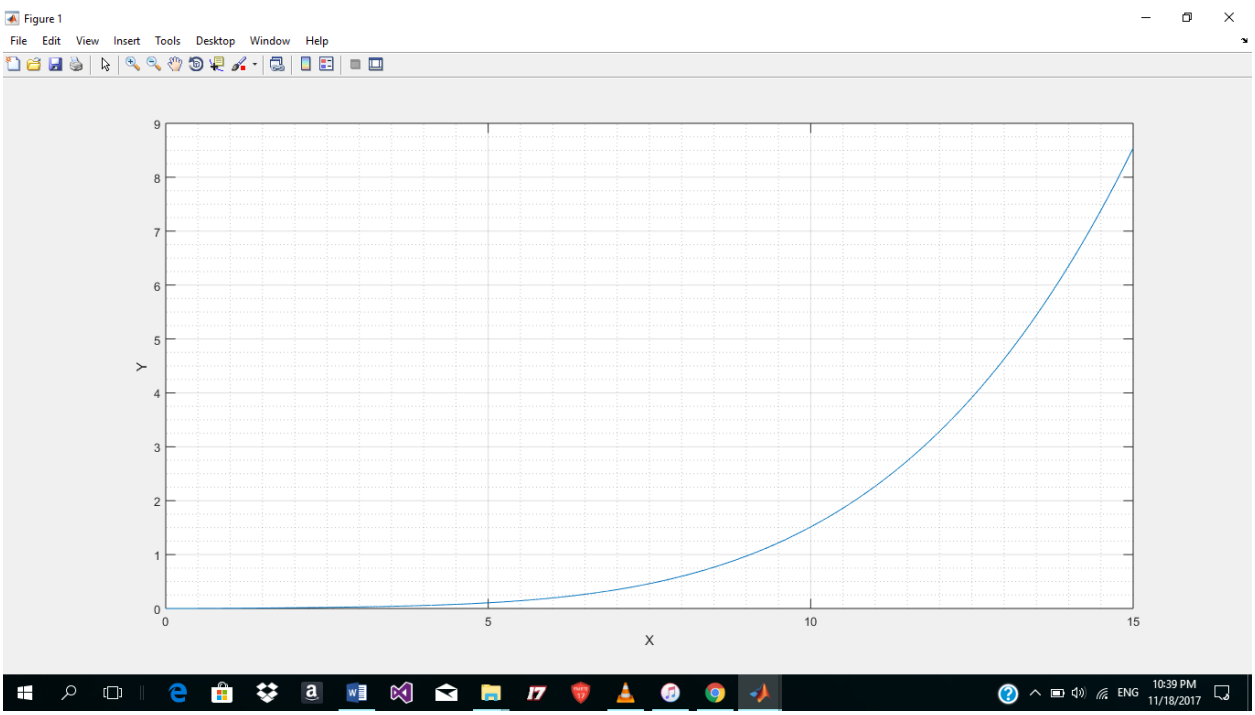
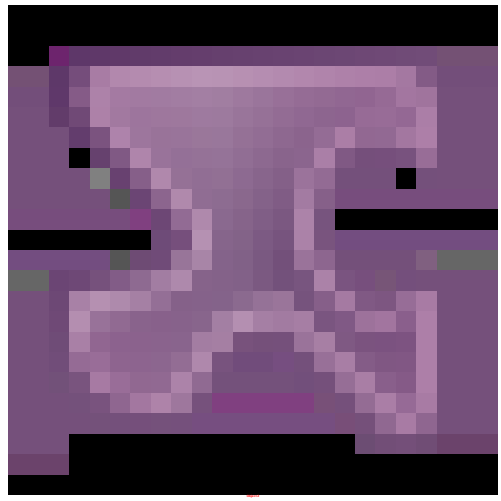
FRENCH ERERE
CIVIL ENGINEERING
16/ENG03/059

QUESTION 1A

```
clc
clear
x = 0:0.001:15
a = x.^2
b = x.^3
c = x.^4
y = ((a)/192)-((b)/720)+((c)/4200)
plot(x,y)
xlabel('X')
ylabel('Y')
grid on
grid minor
```



time in hours	amount of product, n
0	5
0.01	4.933171716
0.02	4.872878313
0.03	4.819112856
0.04	4.771876383
0.05	4.73117808
0.06	4.697035461
0.07	4.669474552
0.08	4.648530105
0.09	4.634245807
0.1	4.626674511
0.11	4.625878481
0.12	4.631929648
0.13	4.644909877
0.14	4.664911258
0.15	4.692036401
0.16	4.726398758
0.17	4.768122952
0.18	4.817345125
0.19	4.874213312
0.2	4.938887816
0.21	5.011541619
0.22	5.092360802
0.23	5.18154499
0.24	5.27930781
0.25	5.385877384
0.26	5.501496833
0.27	5.626424805
0.28	5.760936034
0.29	5.905321921
0.3	6.059891133
0.31	6.224970243
0.32	6.400904388
0.33	6.588057956
0.34	6.786815309
0.35	6.997581536
0.36	7.220783231
0.37	7.456869315
0.38	7.706311888
0.39	7.969607115
0.4	8.247276159
0.41	8.539866143
0.42	8.847951158
0.43	9.172133316
0.44	9.513043841
0.45	9.871344215
0.46	10.24772736
0.47	10.64291888
0.48	11.05767836
0.49	11.4928007
0.5	11.94911749

QUESTION 1B

Formula for n = (2.07*EXP(4*A2))+(2.93*EXP(-3*F3A2))-(12*A2^3)+(3*A2^2)-(6.5*A2)