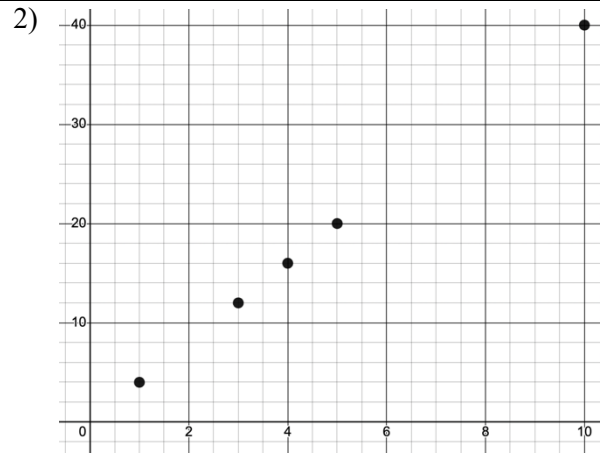
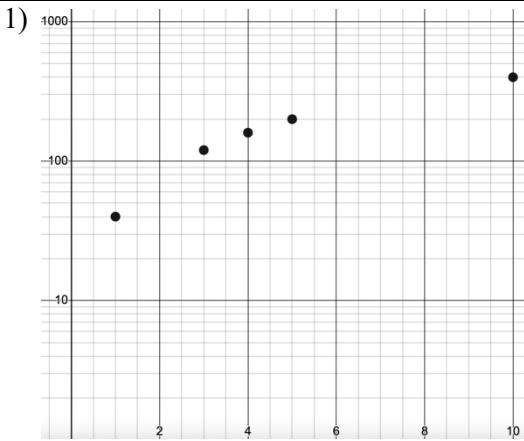


2.15 Semi-Log Plots

AP Precalculus

Name: _____

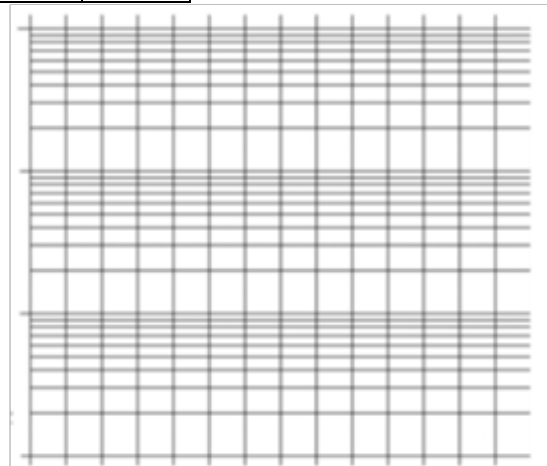
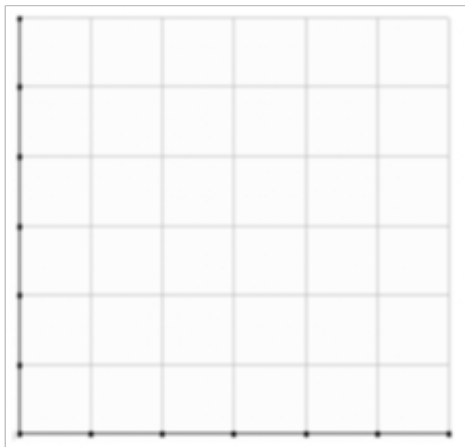
Instructions: Instructions: Tell which graphs represent exponential functions and which do not. Then explain why.



CALCULATOR ACTIVE: Instructions: Answer the questions pertaining to the given data.

3) A) Plot the following data on both graphs below.

X	1	3	4	6	7
Y	720	461	369	236	189



B) Find a regression equation for the above data.

C) Take the log of both sides and use log rules to create a linear function.

D) Complete the table to find $\log y$.

X	1	3	4	6	7
Y	720	461	369	236	189
Log y					

E) Find a linear regression equation for $(x, \log y)$.

ANSWERS

- 1) No, because the semi-log plot does not show a linear relationship
- 2) No because the linear relationship is not on a semi-log plot.
- 3) A) graphs should be able to be done, if you need help, please see your teacher.
B) $f(x) = 899.95(0.8^x)$
C) $\log y = \log 899.95 + x \cdot \log 0.8$
D)

X	1	3	4	6	7
Y	720	461	369	236	189
Log y	2.86	2.66	2.57	2.37	2.28

E) $\log y = -0.10x + 2.95$