MATCHING: Match each Equation with a TABLE, GRAPH, and SCENARIO.

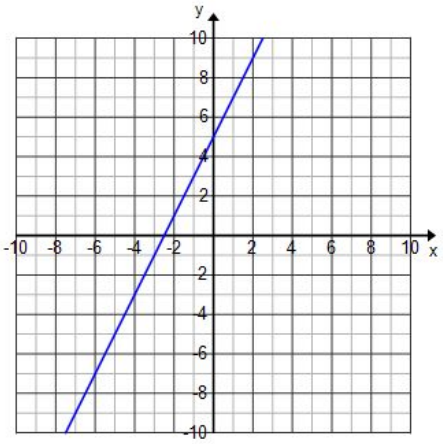
1 $y = 5(2)^x$ 2. $y = 2x + 5$ 3. $y = 5(\frac{1}{2})^x$

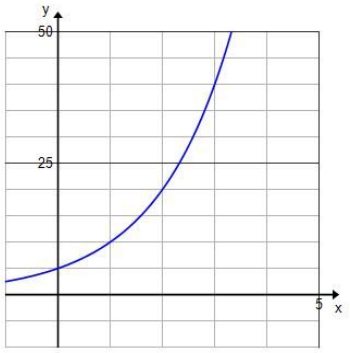
4. $y = 5x + \frac{1}{2}$ 5. $y = 2(5)^x$ 6. $y = \frac{1}{2}(5)^x$

A

t	A
0	2
1	10
2	50
3	250
4	1250

F.





C.

B. You have $.50, and invest it so you get 5 times more each year.

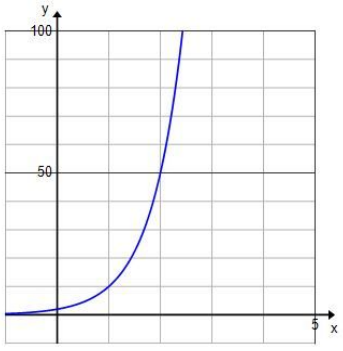
D. A 5 gram substance is decaying by half each week.

E. A car starts at 5m travels as a constant speed of $2\frac{m}{sec}$.

M. There are 5 bugs and they are doubling every week.

G. You have $.50 and you get $5 each week.

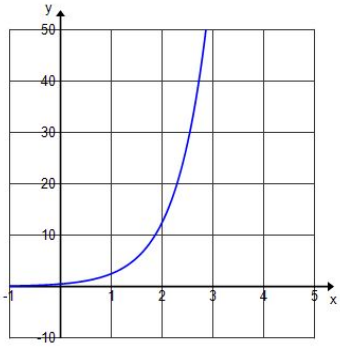
P. Your friend bets you $2 he can beat you in arm wrestling. You win. He wants a rematch, but you tell him the stakes are 5 times higher each time he tries.



J.

H.

t	A
0	5
1	10
2	20
3	40

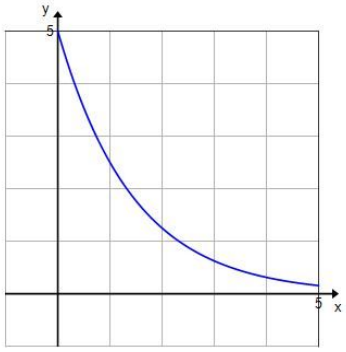


K.

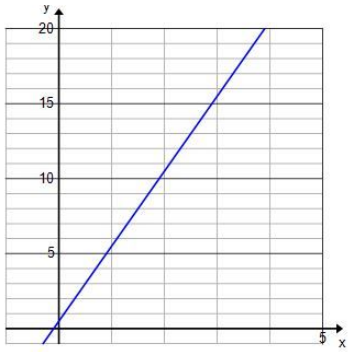
I.

t	A
0	5
1	7
2	9
3	11
4	13

L.



Q.



N.

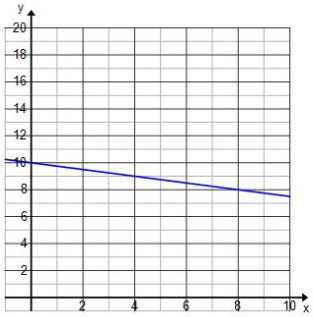
t	A
0	0.5
1	5.5
2	10.5
3	15.5
4	20.5

O.

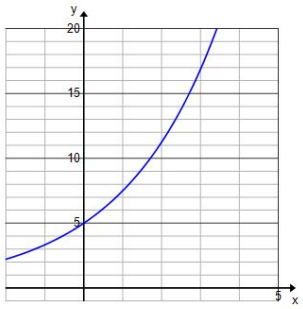
t	A
0	0.5
1	2.5
2	12.5
3	62.5
4	312.5

Label each with an EG (Exponential GROWTH), ED(Exponential Decay), or L(Linear)

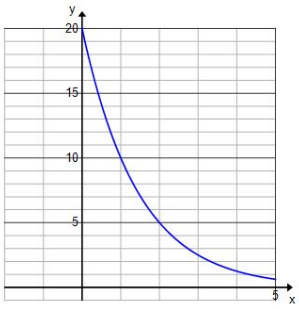
1.



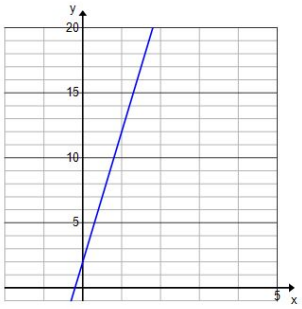
2.



3.



4.



5. $y = \frac{10^2 - x}{2}$

6. $y = 10(2) + x$

7. $y = 10(2)^x$

8. $y = 10 \cdot 0.5^x$

9.

x	y
0	20
1	15
2	10
3	5

10.

x	y
0	20
1	19
2	16
3	11

11

x	y
0	40
1	20
2	10
3	5

12

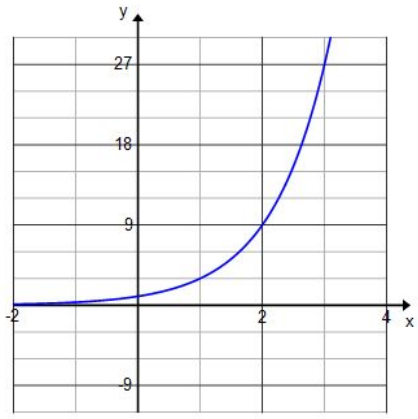
x	y
0	40
1	60
2	90
3	135

The given graph is $y = 1(3)^x$.

Find the Graph for each of the following equations.

7. $y = 1(3)^{x+4}$

8. $y = 1(3)^x + 6$



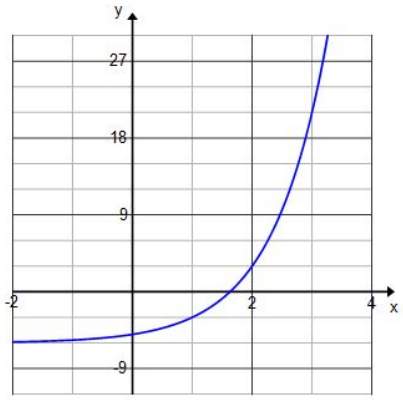
9. $y = 1(3)^x - 6$

10. $y = 1(3)^{x-4}$

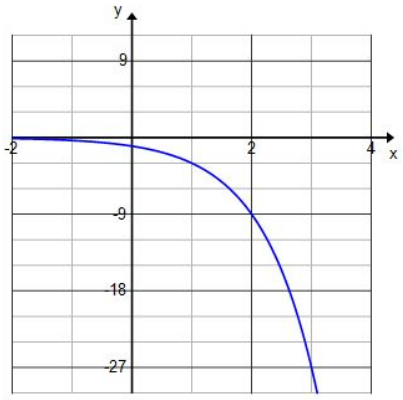
11. $y = -1(3)^x$.

12. $y = 1(3)^{-x}$.

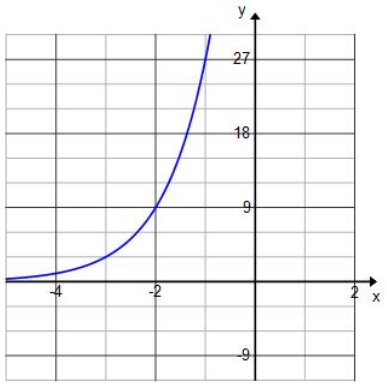
A



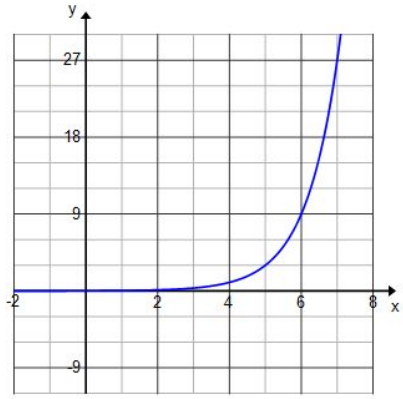
B



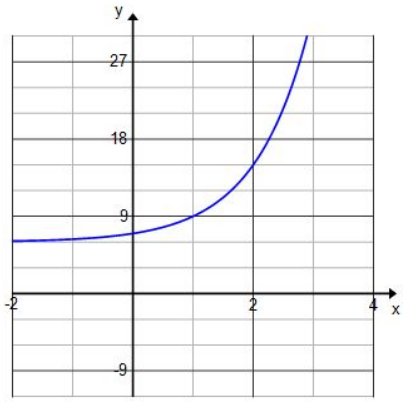
C



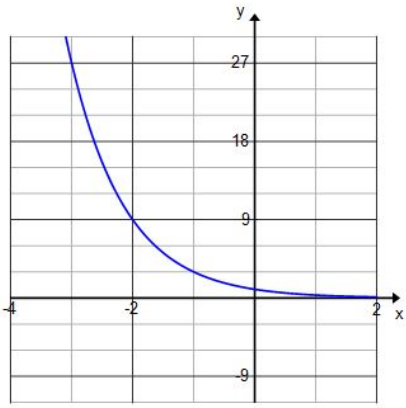
D



E



F



Compare the following tables and label each as L (linear), or E (exponential).

1.

x	y
1	1
2	2
3	4
4	8
5	16

x	y
1	7
2	4
3	1
4	-2
5	-5

2.

x	y
0	2
1	93
2	184
3	275
4	366

x	y
0	$\frac{1}{9}$
1	$\frac{1}{3}$
2	1
3	3
4	9

3.

x	y
0	486
1	162
2	54
3	18
4	6

x	y
4	0
5	4
6	8
7	12
8	16

4.

x	y
-1	1
0	4
1	16
2	64
3	216

x	y
-1	5
0	10
1	15
2	20
3	25

Choose the correct graph for each equation.

13. $y = 3(5)^x$

14. $y = 30(1/2)^x$

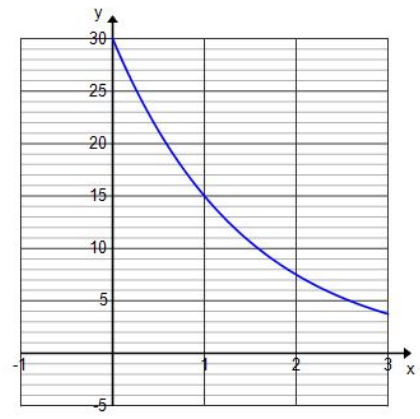
15. $y = 3(1.5)^x$

16. $y = 30(0.75)^x$

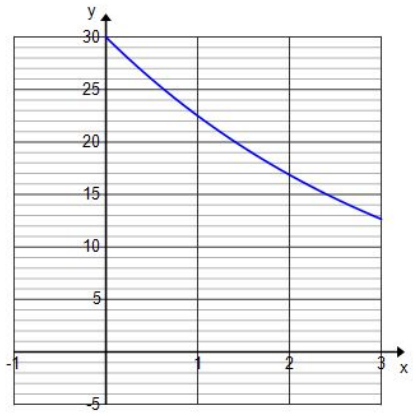
17 $y = 4(2)^x$

18. $y = 4(3)^x$

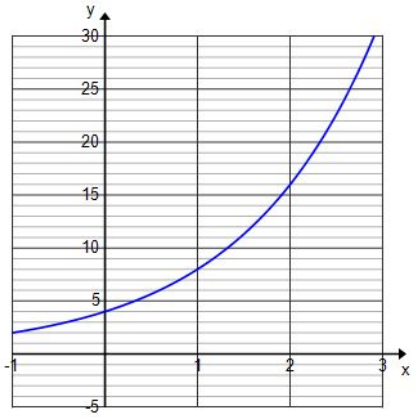
A



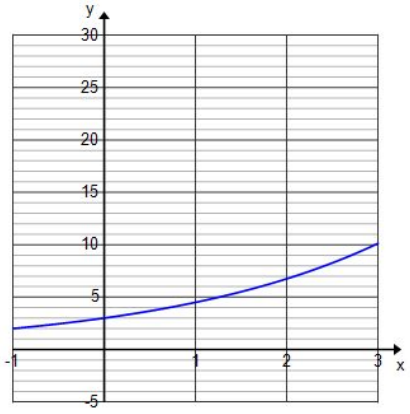
B



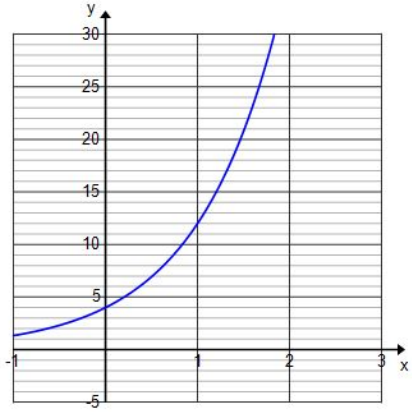
C



D



E



F