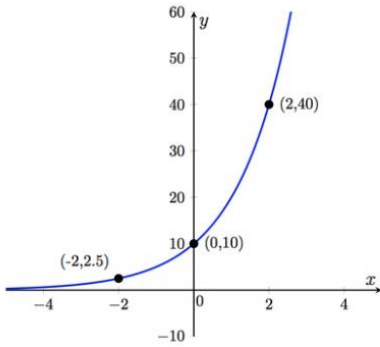


Exponential Functions Homework Day 4

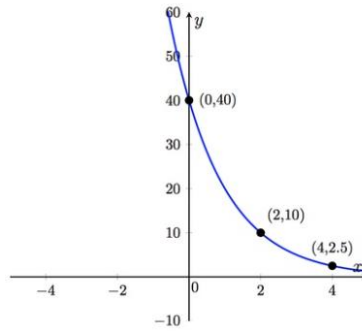
Name _____

Write an exponential function for each of the four graphs.

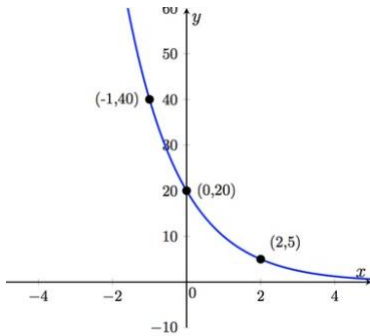
1.



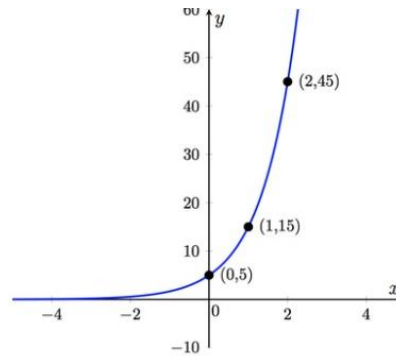
2.



3.



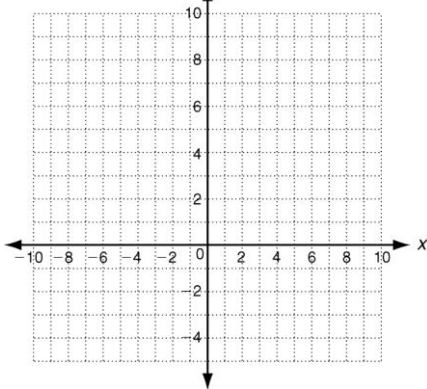
4.



Graph each exponential function.

5. $y = 5(2)^x$

x	y
-2	
-1	
0	
1	
2	



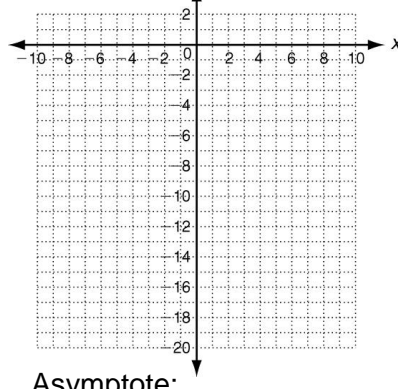
Asymptote:

Domain:

Range:

6. $y = -2(3)^x$

x	y
-2	
-1	
0	
1	
2	



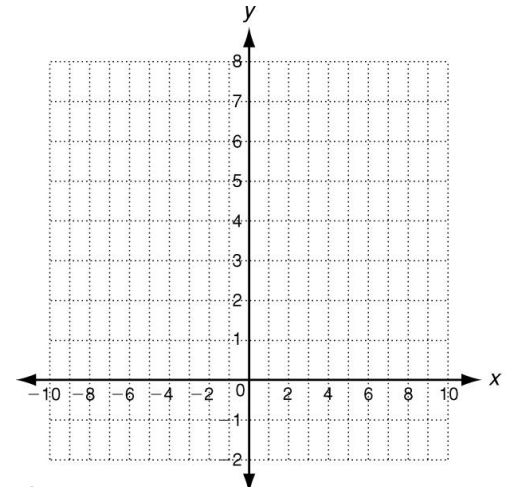
Asymptote:

Domain:

Range:

7. $y = 3 \cdot 10^x$

x	y
-2	
-1	
0	
1	
2	



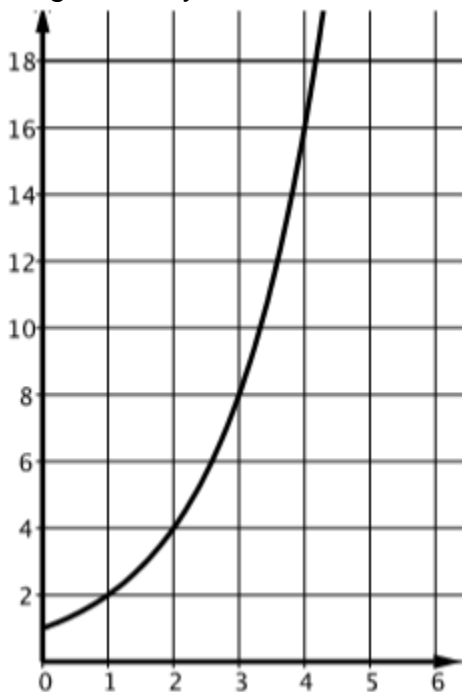
Asymptote:

Domain:

Range:

Comparing Linear and Exponential Functions: Rate of Change

Ash catches Pokemon at a different rate from Misty. The amount of Pokemon Ash has caught on day n is given by the equation $A(n) = 4n$. The graph below $M(n)$, shows the number of Pokemon Misty has caught on day n .



- 1) What is the rate of change (slope) for Ash's function? What does this mean in context?
- 2) What is the average rate of change for Misty's function over the interval $1 \leq x \leq 3$. What does this represent in context?
- 3) Determine the average rate of change for Misty's function on the interval $3 \leq x \leq 5$. Why might it be different on this interval?
- 5.) Which person's number of Pokemon is increasing more rapidly over time? Justify your answer.
