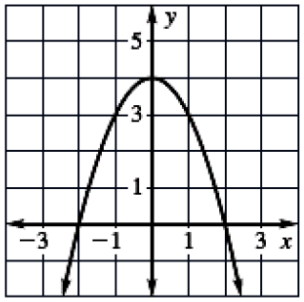
Name: _____ Date: _____Block_____

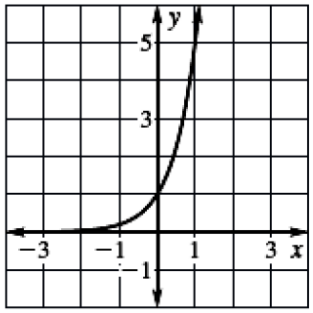
Unit 5 Day 1-3: Compare and Contrast Review Linear, Quadratic, or Exponential Functions

Identify the following as Increasing Linear, Decreasing Linear, Positive Quadratic, Negative Quadratic, Exponential Growth, or Exponential Decay.

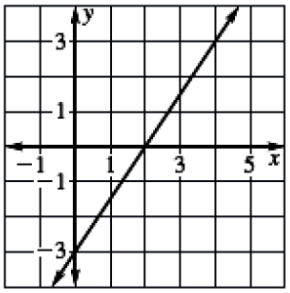
1. _____



2. _____



3. _____



4. _____

x	−1	0	1	2	3
y	22	17	12	7	2

5. _____

x	−1	0	1	2	3
y	$\frac{1}{3}$	1	3	9	27

6. _____

$y = \left(\frac{5}{2}\right)^x$

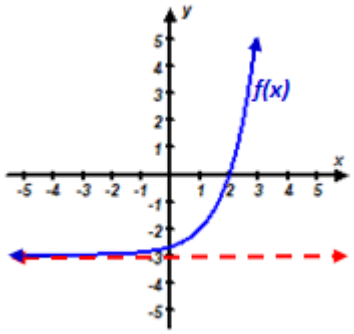
Compare different characteristics of each type of function.

	Y=4 + 3x	Y= $4(3)^x$	Y= $3x^2 - 4$
7. Type of function			
8. Growth or decay			
9. Find the Average Rate of Change from [2, 4]	x | y	x | y	x | y
10. Find the y-int.			
11. Find the x-int.			

Unit 5 – Domain and Range Comparison Linear, Quadratic, or Exponential Functions

12. Determine the Domain and Range of each of the following graphed functions (using Interval and Set Notations).

A.



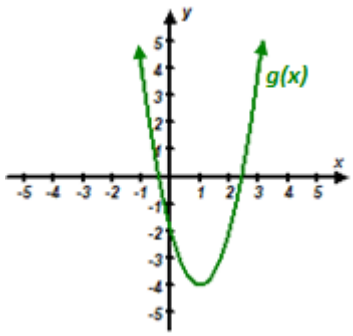
Domain (INTERVAL): _____

Domain (SET): _____

Range (INTERVAL): _____

Range (SET): _____

B.



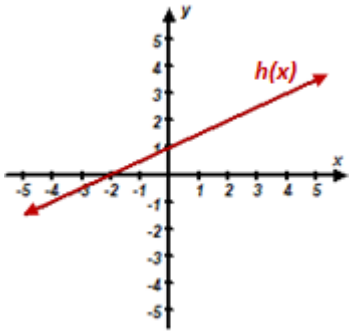
Domain (INTERVAL): _____

Domain (SET): _____

Range (INTERVAL): _____

Range (SET): _____

C.



Domain (INTERVAL): _____

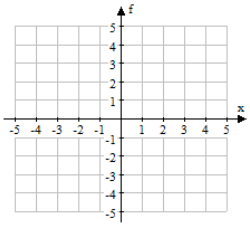
Domain (SET): _____

Range (INTERVAL): _____

Range (SET): _____

13. Determine the Domain and Range of each of the following graphed functions (using Interval and Set Notations).

A. $m(x) = 2(x-1)^2 - 3$



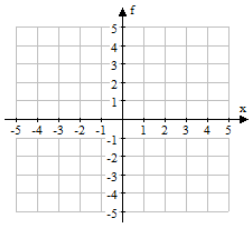
Domain (INTERVAL): _____

Domain (SET): _____

Range (INTERVAL): _____

Range (SET): _____

B. $p(x) = 2^x + 1$



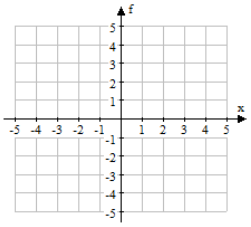
Domain (INTERVAL): _____

Domain (SET): _____

Range (INTERVAL): _____

Range (SET): _____

C. $q(x) = 2x - 4$



Domain (INTERVAL): _____

Domain (SET): _____

Range (INTERVAL): _____

Range (SET): _____

14. If we only considered the functions LINEAR, QUADRATIC, and EXPONENTIAL, which is the only one that could have a **range of [–∞, ∞)** ?

15. If we only considered the functions LINEAR, QUADRATIC, and EXPONENTIAL, which is the only one that could have a **range of (2, ∞)**?

16. If we only considered the functions LINEAR, QUADRATIC, and EXPONENTIAL, which is the only one that could have a **range of [– 5, ∞)**?