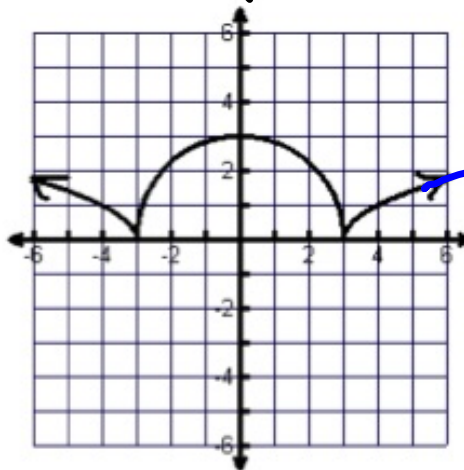
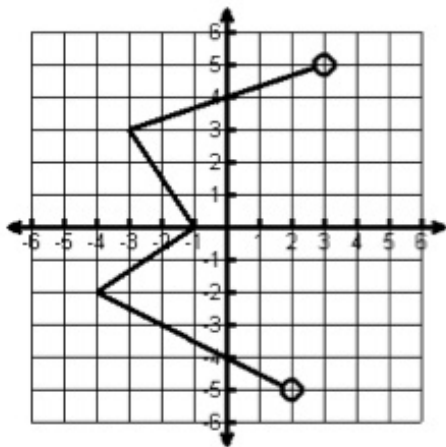


Warm up

Find the Domain and the Range:

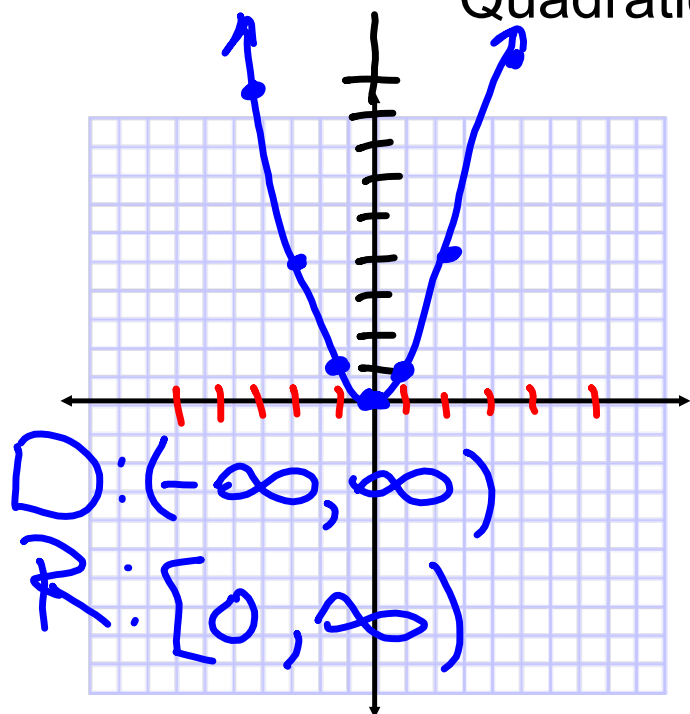
Domain $[-4, 3)$ Range $(-5, 5)$ Function? noDomain $(-\infty, \infty)$ Range $[0, \infty)$ Function? yes

3-3 Transformations of Graphs

Objective: I can determine from a graph whether a function is quadratic, linear, or exponential.

Objective: I can determine domain and range of linear, exponential, and quadratic functions.

Quadratic



$$f(x) = x^2$$

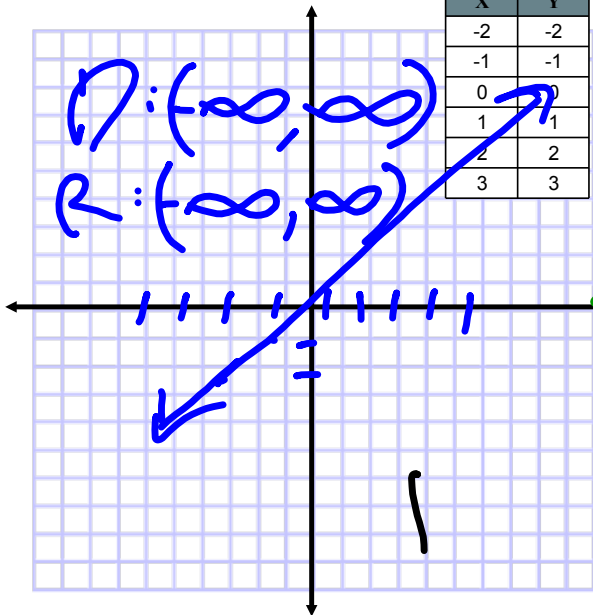
X	Y
5	25
4	16
3	9
2	4
1	1
0	0
-1	1
-2	4

Linear ($y = mx + b$)

$$f(x) = x$$

X	Y
-2	-2
-1	-1
0	0
1	1
2	2
3	3

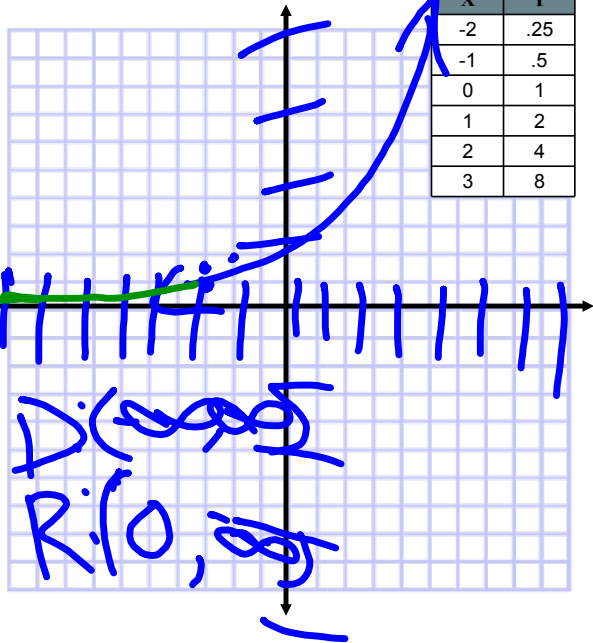
$D: (-\infty, \infty)$
 $R: (-\infty, \infty)$



Exponential

$$f(x) = 2^x$$

X	Y
-2	.25
-1	.5
0	1
1	2
2	4
3	8



$D: (-\infty, \infty)$
 $R: (0, \infty)$

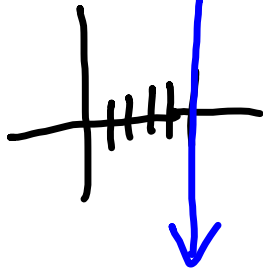
What type of function is it and what is the domain and range?

$$x = 5$$

Linear

$$D: \{5\}$$

$$R: (-\infty, \infty)$$

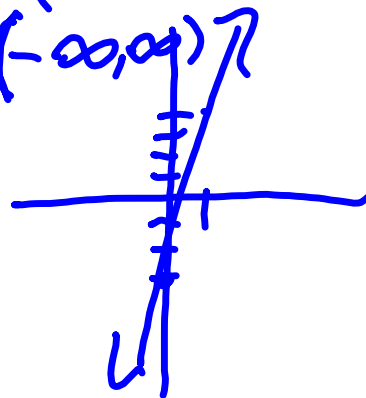


$$y = 7x - 3$$

Linear

$$D: (-\infty, \infty)$$

$$R: (-\infty, \infty)$$



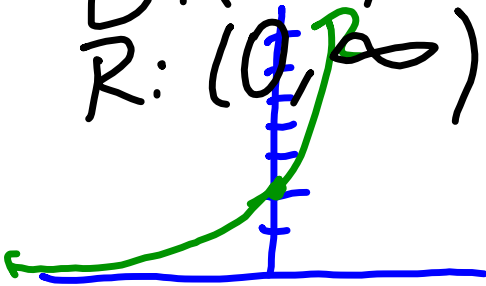
What type of function is it and what is the domain and range?

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

Exponential

$$D: (-\infty, \infty)$$

$$R: (0, \infty)$$



$$y = -2x^2 + x - 3$$

Quadrat;

$$D: (-\infty, \infty)$$

$$R: (-\infty, -3]$$

