

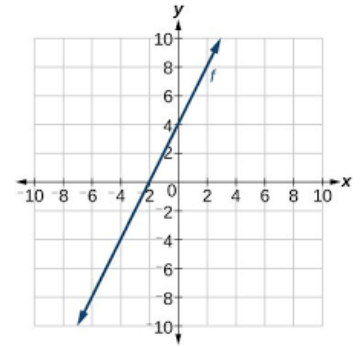
Introduction to Functions and Evaluating

Functions we will be studying throughout semester 1

1.) Linear Function: $y = mx + b$ or $f(x) = mx + b$

Example: $f(x) = 3x + 2$

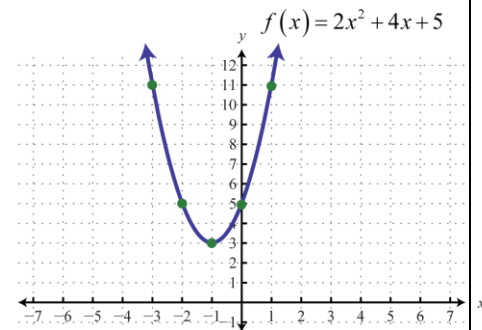
Example of shape:



2.) Quadratic Function: $y = ax^2 + bx + c$ or $f(x) = ax^2 + bx + c$

Example: $f(x) = 2x^2 + x - 3$

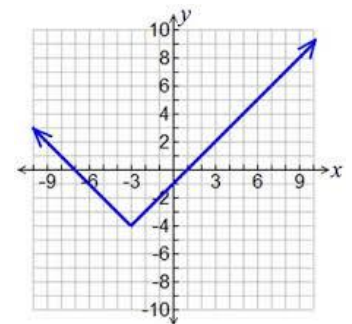
Example of shape:



3.) Absolute Value Function: $y = a|bx - h| + k$ or $f(x) = a|bx - h| + k$

Example: $f(x) = 2|x - 3| + 1$

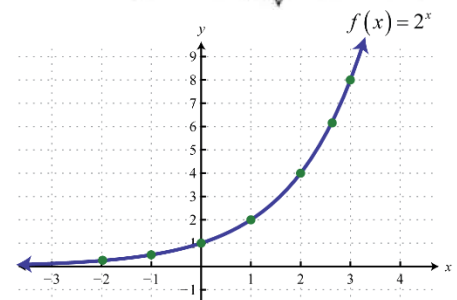
Example of shape:



4.) Exponential Function: $y = a \cdot b^{x-h} + k$ or $y = a \cdot b^{x-h} + k$

Example: $f(x) = 2 \cdot 3^{x-4} + 1$

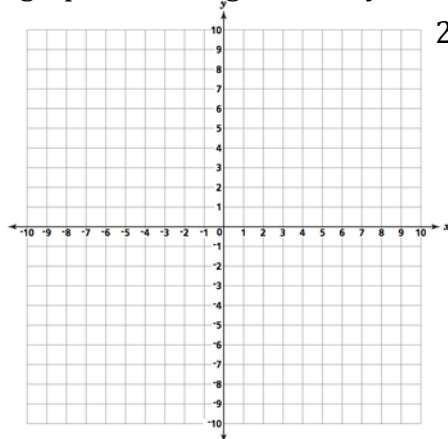
Example of shape:



Evaluate the following function by filling in the x-y function tables and graphing with the correct shape of the graph according to the key above. Show all work on separate paper.

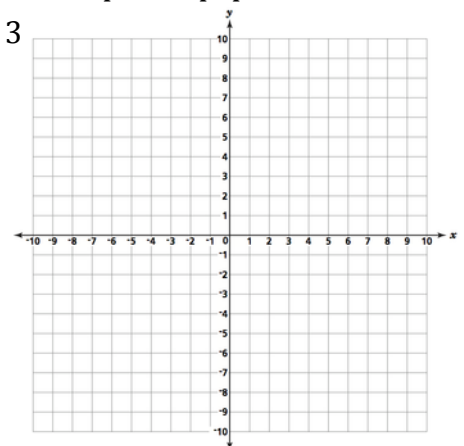
1.) $f(x) = 2x - 1$

x	y
-2	
-1	
0	
1	
2	



2.) $f(x) = \frac{1}{2}x + 3$

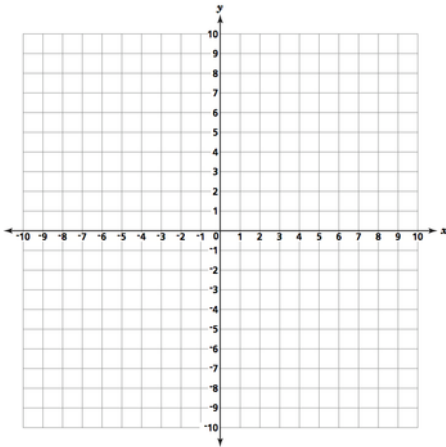
x	y
-4	
-2	
0	
2	
4	



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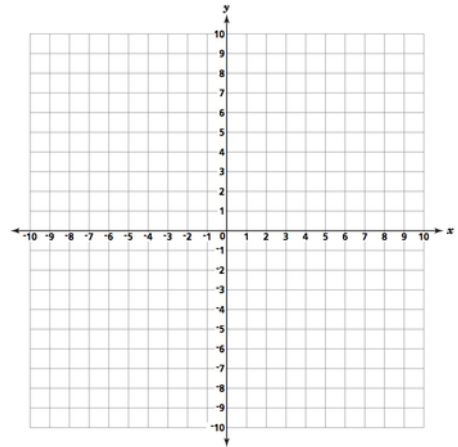
3.) $f(x) = x^2$

x	y
-2	
-1	
0	
1	
2	



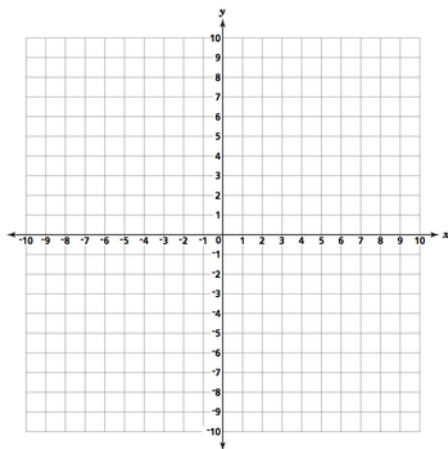
4.) $f(x) = x^2 - 2x + 1$

x	y
-2	
-1	
0	
1	
2	



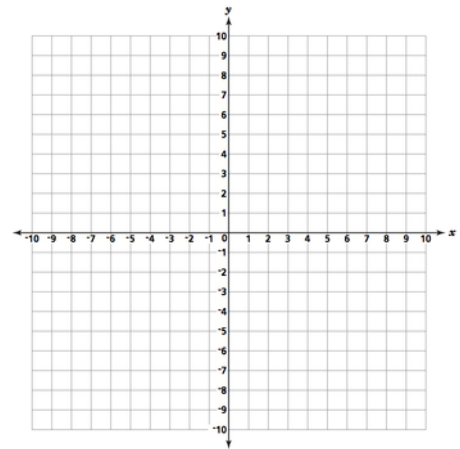
5.) $f(x) = |x|$

x	y
-2	
-1	
0	
1	
2	



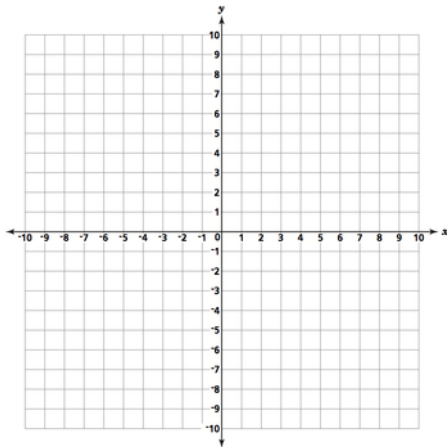
6.) $f(x) = |x + 2| - 1$

x	y
-2	
-1	
0	
1	
2	



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

x	y
1	
2	
3	
4	



8.) $f(x) = 2^x - 3$

x	y
1	
2	
3	
4	

