$y = x$

Linear

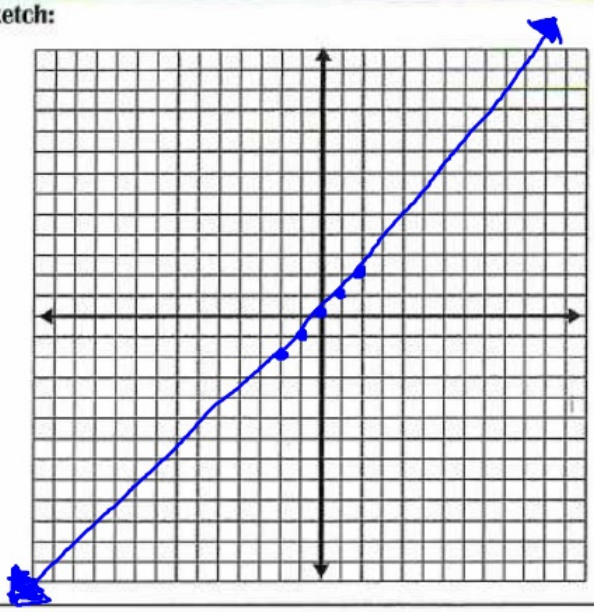
f(x)= x

Table of Values

choose two positive, two negative and zero for values of x

x	y
-2	-2
-1	-1
0	0
1	1
2	2

Sketch:



f(x)= x	
Domain (interval)	$(-\infty, +\infty)$
Range (interval)	$(-\infty, +\infty)$
Increasing (interval)	$(-\infty, +\infty)$
Decreasing (interval	none
Intercepts	(0,0) - both X and y-int
* Asymptotes	None
End behavior	L: $x \to -\infty$ $y \to -\infty$ R: $x \to +\infty$ $y \to +\infty$
* Symmetry	odd

Additional info:

$y = |x|$

Absolute Value

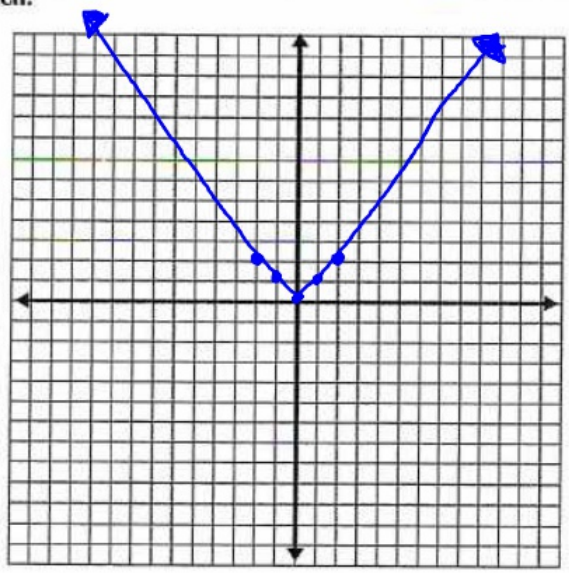
f(x) = |x|

Table of Values

choose two positive, two negative and zero for values of x

x	y
-2	2
-1	1
0	0
1	1
2	2

Sketch:



f(x)= |x|	
Domain (interval)	$(-\infty, +\infty)$
Range (interval)	$[0, +\infty)$
Increasing (interval)	$(0, +\infty)$
Decreasing (interval	$(-\infty, 0)$
Intercepts	(0,0) both x and y-int
Asymptotes	none
End behavior	L: $x \to -\infty$ $y \to +\infty$ R: $x \to +\infty$ $y \to +\infty$
Symmetry	even

Additional info:

V-shaped

Polynomial (Quadratic)

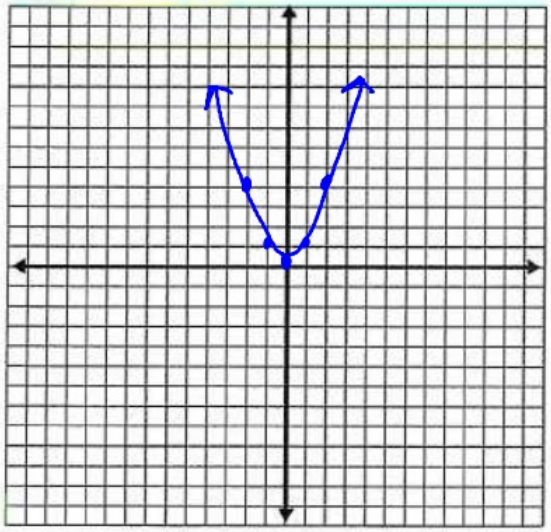
f(x) = x^2

Table of Values

choose two positive, two negative and zero for values of x

x	y
-2	$(-2)^2 = 4$
-1	$(-1)^2 = 1$
0	$(0)^2 = 0$
1	$(1)^2 = 1$
2	$(2)^2 = 4$

Sketch:



$f(x) = x^2$	
Domain (interval)	
Range (interval)	
Increasing (interval)	
Decreasing (interval	
Intercepts	
Asymptotes	
End behavior	
Symmetry	

Additional info:

Polynomial (Cubic)

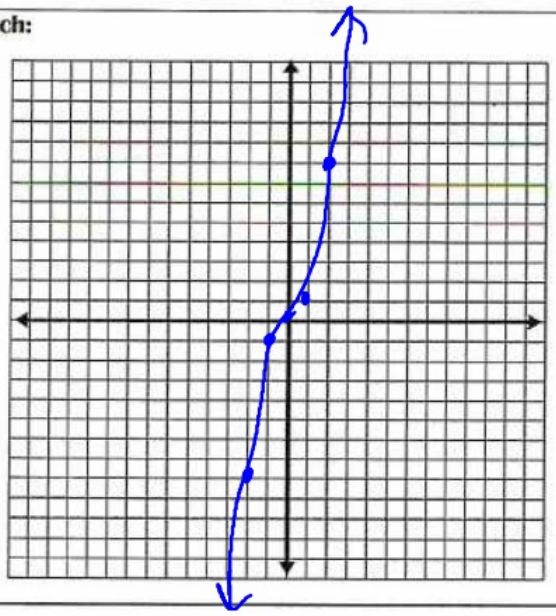
$f(x) = x^3$

Table of Values

choose two positive, two negative and zero for values of x

x	y
-2	$(-2)^3 = -8$
-1	$(-1)^3 = -1$
0	$(0)^3 = 0$
1	$(1)^3 = 1$
2	$(2)^3 = 8$

Sketch:



$f(x) = x^3$	
Domain (interval)	
Range (interval)	
Increasing (interval)	
Decreasing (interval	
Intercepts	
Asymptotes	
End behavior	
Symmetry	

Additional info: