

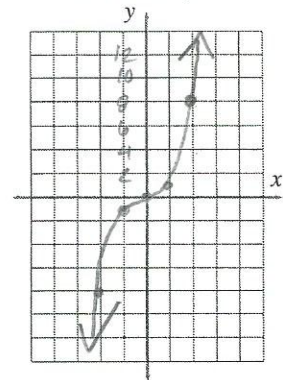
Parent Graph Name: *Cubic*

Parent Graph Table

Parent Graph

Parent Equation: $y = x^3$

x	y
-5	-125
-4	-64
-3	-27
-2	-8
-1	-1
0	0
1	1
2	8
3	27
4	64
5	125

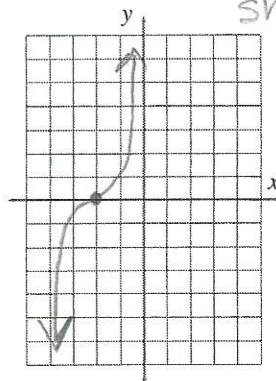


Equation of Transformed Function (Graphing Form):

$$y = a(x-h)^3 + k$$

Sketch of Transformed Graph

shift left



Domain and Range of Transformed Function:

$$y = (x+2)^3 + 0$$

D: all real #'s
R: all real #'s

Interesting Properties:

(asymptotes, symmetry, endpoints, maxima, etc.)

x-int: (-2, 0)

Describe where (on the transformed graph) the locator point (h, k) is: *at the middle of the graph or point of inflection*

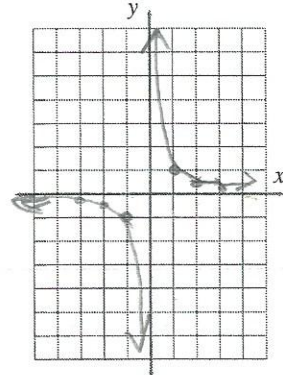
Parent Graph Name: *Hyperbola*

Parent Graph Table

Parent Graph

Parent Equation: $y = \frac{1}{x}$

x	y
-5	-1/5
-4	-1/4
-3	-1/3
-2	-1/2
-1	-1
0	undef
1	1
2	1/2
3	1/3
4	1/4
5	1/5

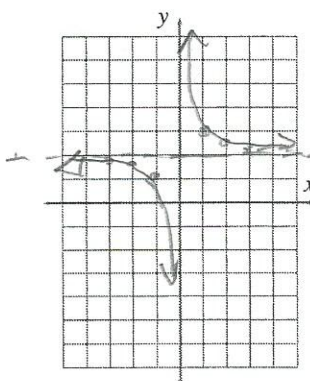


Equation of Transformed Function (Graphing Form):

$$y = a\left(\frac{1}{x-h}\right) + k$$

Sketch of Transformed Graph

shift up 2
 $y = \frac{1}{x} + 2$



Domain and Range of Transformed Function:

D: x > 0 and x < 0
R: y > 2 and y < 2

Interesting Properties:

(asymptotes, symmetry, endpoints, maxima, etc.)

Asymptotes: y = 2
x = 0

Symmetry line y = x + 2

Describe where (on the transformed graph) the locator point (h, k) is:

At the intersection of the asymptotes

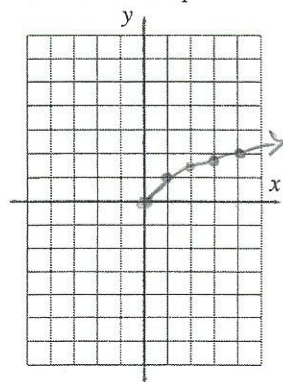
Parent Graph Name: *square root*

Parent Graph Table

Parent Graph

Parent Equation: $y = \sqrt{x}$

x	y
-5	
-4	
-3	
-2	
-1	
0	0
1	1
2	$\sqrt{2}$
3	$\sqrt{3}$
4	2
5	$\sqrt{5}$

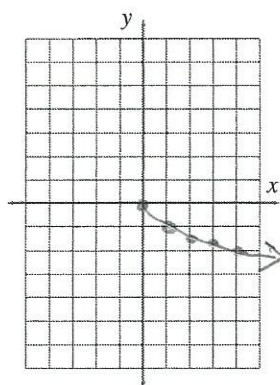


Equation of Transformed Function (Graphing Form):

$$y = a\sqrt{x-h} + k$$

Sketch of Transformed Graph

Flip
 $y = -1\sqrt{x-0} + 0$



Domain and Range of Transformed Function:

$D: x \geq 0$ $R: y \leq 0$

Interesting Properties:

(asymptotes, symmetry, endpoints, maxima, etc.)

End point (0,0) No min
 Max (0,0)

Describe where (on the transformed graph) the locator point (h, k) is:

At the endpoint

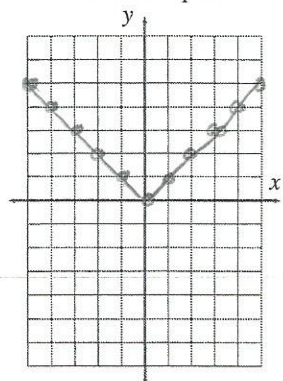
Parent Graph Name: *Absolute value*

Parent Graph Table

Parent Graph

Parent Equation: $y = |x|$

x	y
-5	5
-4	4
-3	3
-2	2
-1	1
0	0
1	1
2	2
3	3
4	4
5	5

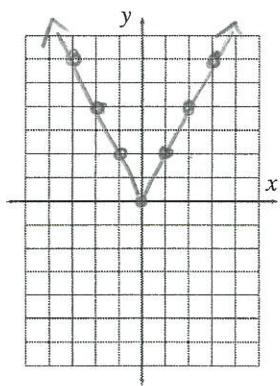


Equation of Transformed Function (Graphing Form):

$$y = a|x-h| + k$$

Sketch of Transformed Graph

Stretch
 $y = 2|x-0| + 0$



Domain and Range of Transformed Function:

$D: \text{all real \#s}$ $R: y \geq 0$

Interesting Properties:

(asymptotes, symmetry, endpoints, maxima, etc.)

Symmetry: Line $x=0$ Min: (0,0)
 Vertex (0,0)

Describe where (on the transformed graph) the locator point (h, k) is:

At the vertex

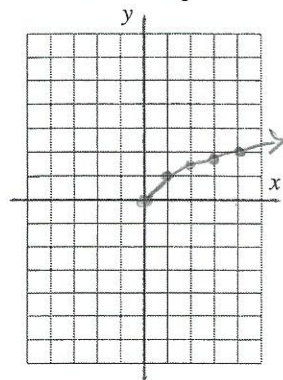
Parent Graph Name: *Square root*

Parent Graph Table

Parent Graph

Parent Equation: $y = \sqrt{x}$

x	y
-5	
-4	
-3	
-2	
-1	
0	0
1	1
2	$\sqrt{2}$
3	$\sqrt{3}$
4	2
5	$\sqrt{5}$

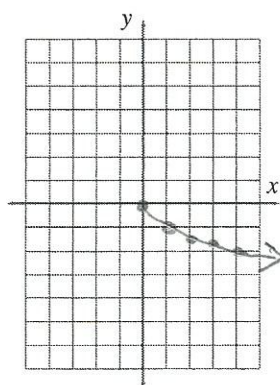


Equation of Transformed Function (Graphing Form):

$$y = a\sqrt{x-h} + k$$

Sketch of Transformed Graph

FLIP
 $y = -1\sqrt{x-0} + 0$



Domain and Range of Transformed Function:

$D: x \geq 0$ $R: y \leq 0$

Interesting Properties:

(asymptotes, symmetry, endpoints, maxima, etc.)

Endpoint (0,0) No min
Max (0,0)

Describe where (on the transformed graph) the locator point (h, k) is:

At the endpoint

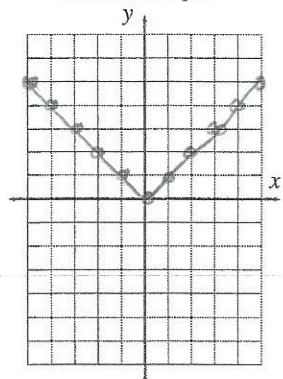
Parent Graph Name: *Absolute value*

Parent Graph Table

Parent Graph

Parent Equation: $y = |x|$

x	y
-5	5
-4	4
-3	3
-2	2
-1	1
0	0
1	1
2	2
3	3
4	4
5	5

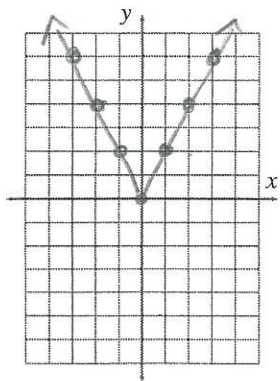


Equation of Transformed Function (Graphing Form):

$$y = a|x-h| + k$$

Sketch of Transformed Graph

Stretch
 $y = 2|x-0| + 0$



Domain and Range of Transformed Function:

$D: \text{all real \#s}$ $R: y \geq 0$

Interesting Properties:

(asymptotes, symmetry, endpoints, maxima, etc.)

Symmetry: Line x=0 Min: (0,0)
Vertex (0,0)

Describe where (on the transformed graph) the locator point (h, k) is:

At the vertex