

Name: _____ Period: _____

1.4 Parent Graphs and Transformations

For each function, identify the parent graph ($y = \sqrt{x}$, $y = x^2$, or $y = |x|$), then identify the transformation needed to get from the parent graph to the final graph.

1. $y = -|x|$

2. $y = \sqrt{x} + 3$

3. $y = (x - 4)^2$

Parent: _____

Parent: _____

Parent: _____

Transformation:

Transformation:

Transformation:

4. $y = \frac{1}{3}x^2$

5. $y = |x + 1|$

6. $y = 5\sqrt{x}$

Parent: _____

Parent: _____

Parent: _____

Transformation:

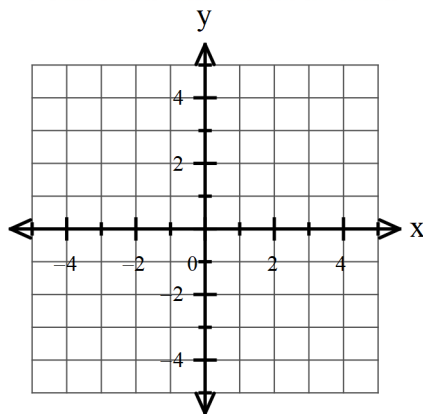
Transformation:

Transformation:

Given the parent equation, fill in the parent table. No calculators. Then draw the parent graph using the key points.

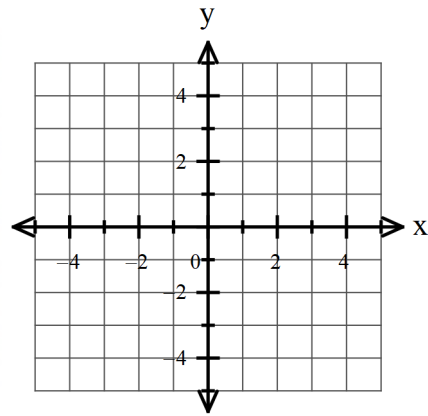
7. $y = |x|$

x	work	y	ordered pair
-2	$ -2 =$	2	$(-2, 2)$
-1		1	
0	$ 0 =$		
1			
2			



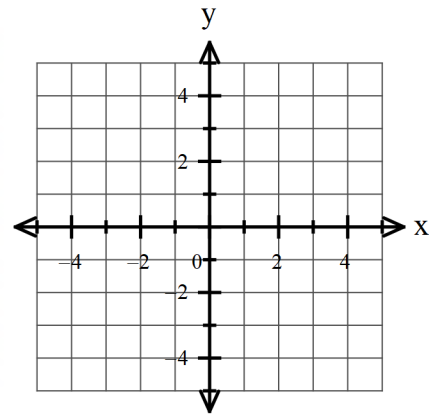
8. $y = x^2$

x	work	y	ordered pair
-2	$(-2)^2 =$	4	$(-2, 4)$
-1		1	
0	$(0)^2 =$		
1			
2			



9. $y = x$

x	work	y	ordered pair
-2	$-2 =$	-2	$(-2, -2)$
-1		-1	
0	$0 =$		
1			
2			



10. $y = \sqrt{x}$

x	work	y	ordered pair
-1	$\sqrt{-1} =$	error	none
0		0	$(0, 0)$
1	$\sqrt{1} =$		
4			
9			

