

Name _____

Pd _____

Date _____

Ms. Schmidt

Pre-Calculus

Rigid Transformations of Parent Functions

1- 6 Give the name of the parent function and describe the transformation represented.

1. $g(x) = x^2 - 1$ Name: _____

Transformation: _____

2. $f(x) = -|x| + 2$ Name: _____

Transformation: _____

3. $h(x) = \sqrt{x-2}$ Name: _____

Transformation: _____

4. $g(x) = x^3 + 3$ Name: _____

Transformation: _____

5. $g(x) = \frac{1}{x+6}$ Name: _____

Transformation: _____

6. $f(x) = |-x + 5| - 2$ Name: _____

Transformation: _____

#8-12 Identify the domain and range of the function. Describe the transformation from its parent function.

8. $g(x) = -\sqrt{x+5}$ Domain : _____ Range : _____

Transformation: _____

9. $h(x) = -x^2 + 1$ Domain : _____ Range : _____

Transformation: _____

10. $h(x) = |x - 4| - 2$ Domain : _____ Range : _____

Transformation: _____

12. $h(x) = (x + 9)^2$ Domain : _____ Range : _____

Transformation: _____

#13 - 16 Given the parent function and a description of the transformation, write the equation of the transformed function, $f(x)$.

13. Absolute value—vertical shift up 5, horizontal shift right 3. _____

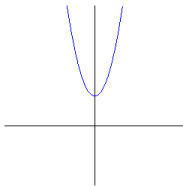
14. Cubic—reflected over the x axis and vertical shift down 2 _____

15. Quadratic- reflected over the x-axis and a horizontal shift left 4 _____

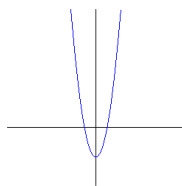
16. Square Root- vertical shift down 4 and horizontal shift right 2. _____

17. Which graph best represents the function $f(x) = x^2 - 2$? _____

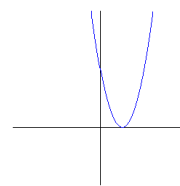
a.



b.



c.



d.

