

Parent Function Worksheet Name _____ Pd. _____

1- 7 Give the name of the parent function and describe the transformation represented.

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

Transformation: _____

2. $f(x) = 2|x-1|$ Name: _____

Transformation: _____

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

Transformation: _____

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

Transformation: _____

5. $g(x) = \sqrt[3]{x+5}$ Name: _____

Transformation: _____

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

Transformation: _____

7. $h(x) = 2x - 3$ Name: _____

Transformation: _____

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

8. $g(x) = 3\sqrt{x}$ Domain : _____ Range : _____

Transformation: _____

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

Transformation: _____

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

Transformation: _____

11. $f(x) = \frac{3}{4}\sqrt{x}$ Domain : _____ Range : _____

Transformation: _____

12. $h(x) = 6(x + 9)^2$ Domain : _____ Range : _____

Transformation: _____

#13 - 17 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. Radical—vertical compression by $\frac{2}{5}$ _____

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

16. Reciprocal – vertical stretch by 8

17. Quadratic—vertical compression by .45, horizontal shift left 8. _____

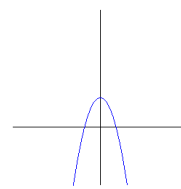
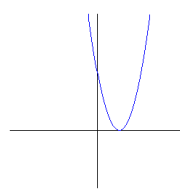
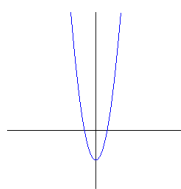
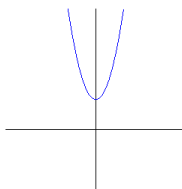
18. Which graph best represents the function $f(x) = 2x^2 - 2$? _____

a.

b.

c.

d.



19. Name six parent functions that we discussed.
