Name_____ Date_____ Period_____

APPLYING TRANSFORMATIONS WORKSHEET #1

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

   Transformation:_____

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

   Transformation:_____

7. $h(x) = \dfrac{1}{x} - 5$ 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. What type of function can be used to determine the side length of a square if the independent variable is the square's area?

a. cubic b. linear c. quadratic d. radical