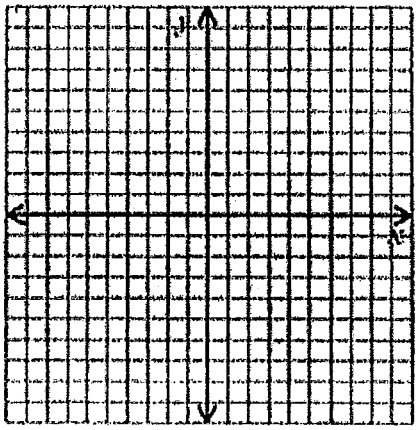
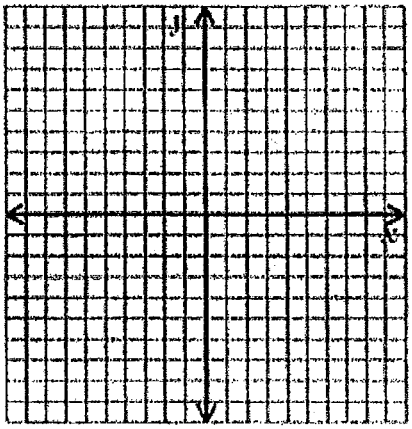
Parent Function Transformation worksheet Name_____Date_____per___

Sketch the graph and describe the transformations

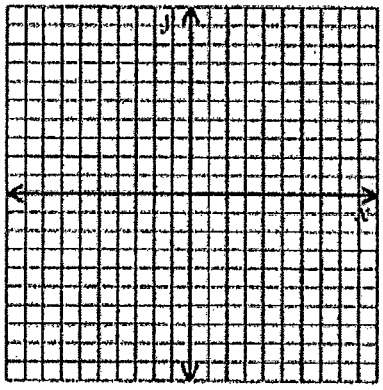
1) a. $f(x)=(x-7)^2+4$



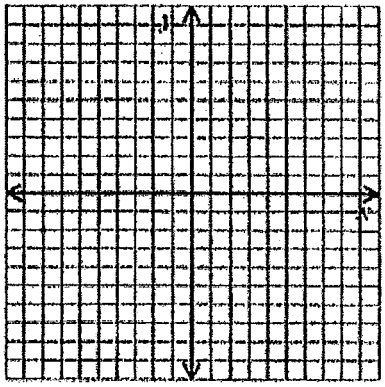
b. $f(x)=2(-x+2)^2+6$



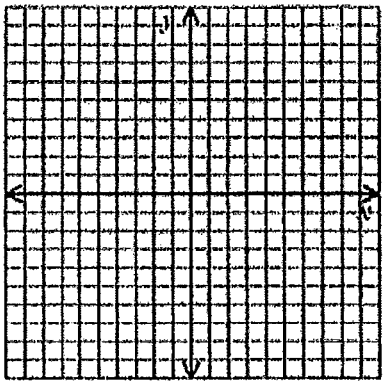
4) a. $f(x)=|x-5|-3$



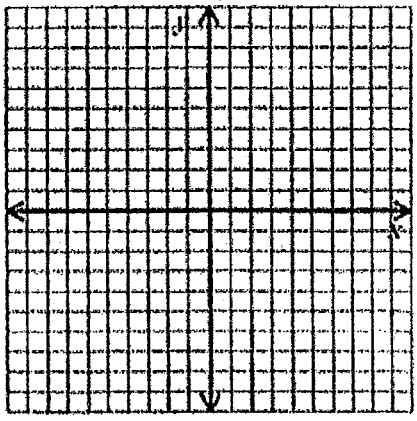
b. $f(x)=-|x-4|+5$



3) $f(x)=-\frac{1}{2}\sqrt{x-7}+2$



b. $f(x)=\sqrt{x-7}+3$



transformations

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

   Transformation: _____

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

   Transformation: _____

7. $f(x) = \frac{3}{4}\sqrt{x}$ Name: _____

   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. Quadratic—vertical compression by 4, horizontal shift left 8. _____