

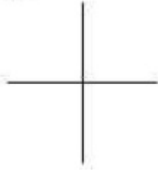
No Calculators

Name: \_\_\_\_\_  
Period: \_\_\_\_\_

### Parent Graphs

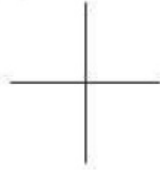
Sketch each of the parent graphs

a)  $y = x$



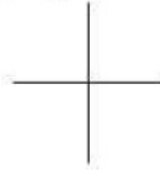
D: \_\_\_\_\_  
R: \_\_\_\_\_

b)  $y = x^2$



D: \_\_\_\_\_  
R: \_\_\_\_\_  
Vertex ( , )

c)  $y = |x|$



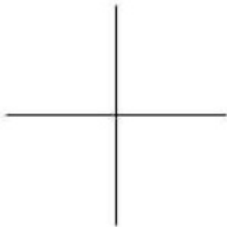
D: \_\_\_\_\_  
R: \_\_\_\_\_  
Vertex ( , )

List the transformations and sketch each graph. Determine the domain and range.

Draw the parent function with dotted lines on each graph.

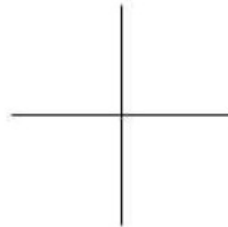
1.  $y = x + 3$

Parent: \_\_\_\_\_  
Vertical Shift: \_\_\_ U D  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



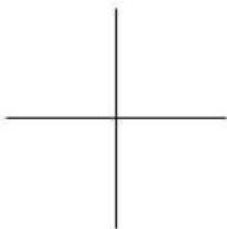
2.  $y = x - 4$

Parent: \_\_\_\_\_  
Vertical Shift: \_\_\_ U D  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



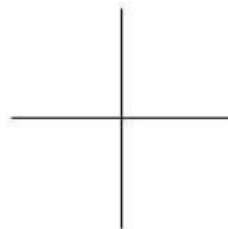
3.  $y = x^2 + 3$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



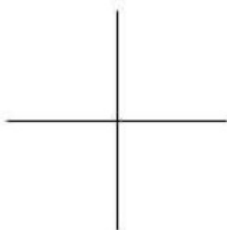
4.  $y = (x + 3)^2$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



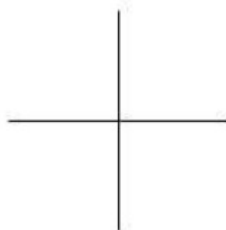
5.  $y = (x+3)^2 - 1$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



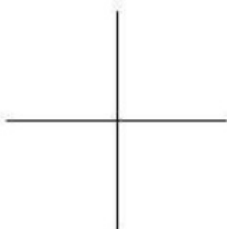
6.  $y = (x-2)^2 - 5$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



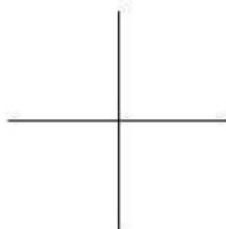
7.  $y = |x| + 2$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



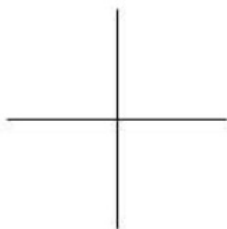
8.  $y = |x+1|$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



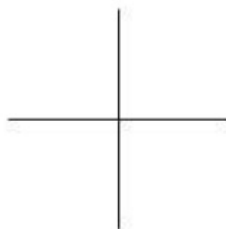
9.  $y = |x+2| - 3$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



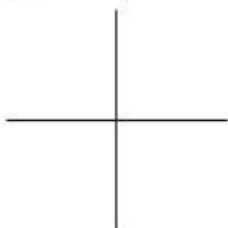
10.  $y = |x-4| - 1$

Parent: \_\_\_\_\_  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



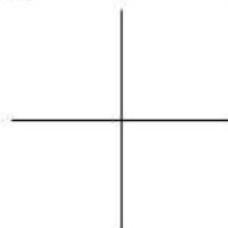
11.  $y = x + 3$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Vertical Shift: \_\_U D  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



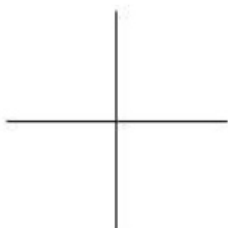
12.  $y = -x$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Vertical Shift: \_\_U D  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



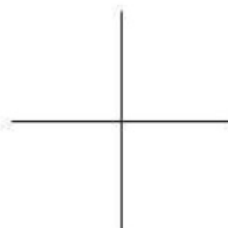
13.  $y = -x + 3$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Vertical Shift: \_\_U D  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



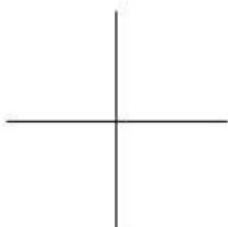
14.  $y = 5|x - 3|$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_L R  
Vertical Shift: \_\_U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



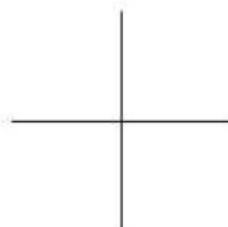
15.  $y = -\frac{1}{3}|x|$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_L R  
Vertical Shift: \_\_U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



16.  $y = -|x - 3|$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_L R  
Vertical Shift: \_\_U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



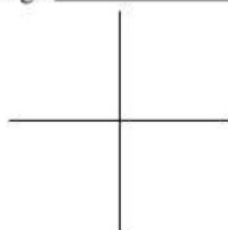
17.  $y = x^2 - 1$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



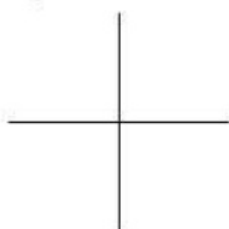
18.  $y = 3(x+2)^2 - 1$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



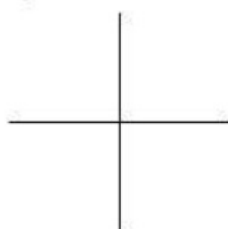
19.  $y = |x| - 4$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



20.  $y = \frac{1}{5}|x-2|$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



21.  $y = -(x+5)^2$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_



22.  $y = |x-3| + 1$

Parent: \_\_\_\_\_  
Stretch / Shrink / Normal  
Reflection: yes or no  
Horizontal Shift: \_\_\_ L R  
Vertical Shift: \_\_\_ U D  
Vertex ( , )  
Domain: \_\_\_\_\_  
Range: \_\_\_\_\_

