

# Transformations of Parent Graphs Assignment

Algebra 2

Name \_\_\_\_\_

ID: 1

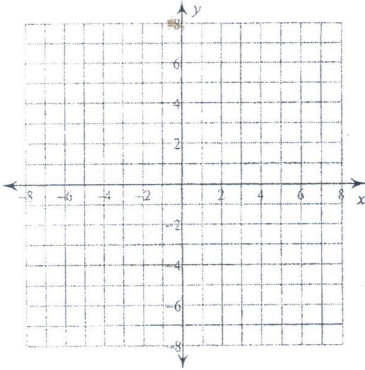
## Assignment

Date \_\_\_\_\_

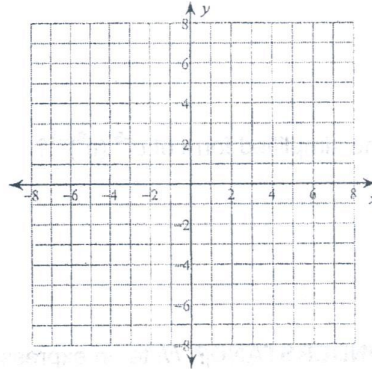
Period \_\_\_\_\_

Identify the vertex and axis of symmetry of each. Then sketch the graph.

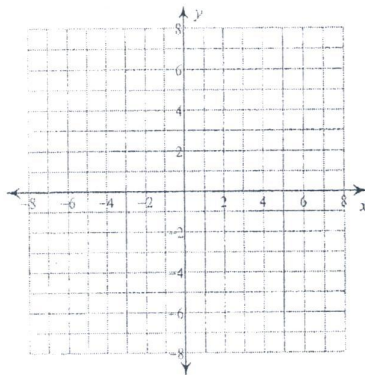
1)  $y = 2(x + 2)^2 - 1$



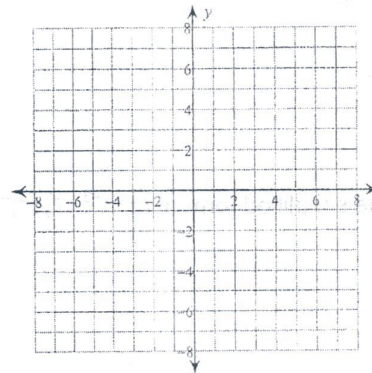
2)  $y = \frac{1}{2}(x - 3)^2 + 6$



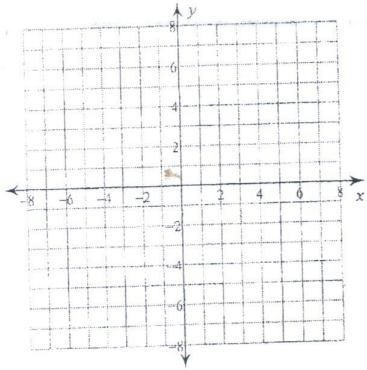
3)  $y = -\frac{1}{2}(x - 1)^2 + 6$



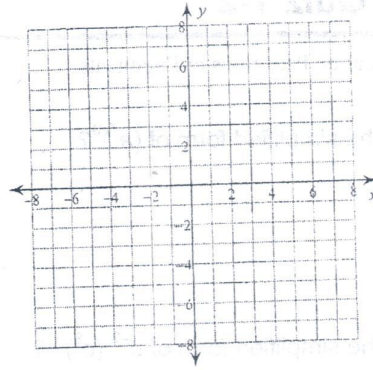
4)  $y = \frac{1}{2}(x - 3)^2 + 5$



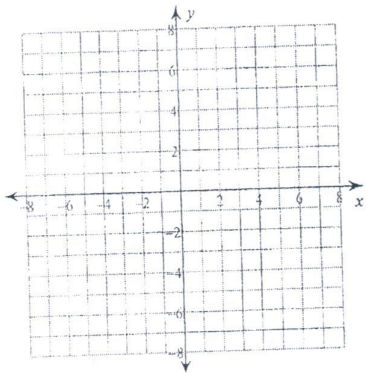
$$5) y = -(x-5)^2 - 3$$



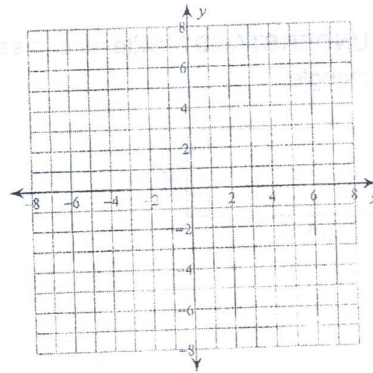
$$6) y = 2(x+3)^2 - 5$$



$$7) y = -\frac{1}{4}x^2 + 4$$

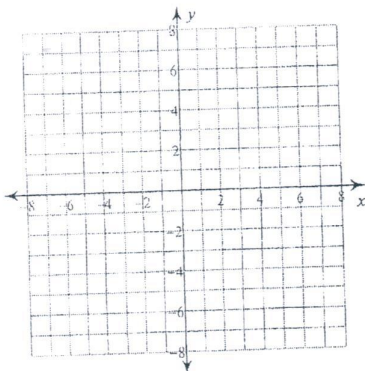


$$8) y = 2(x+4)^2 - 6$$

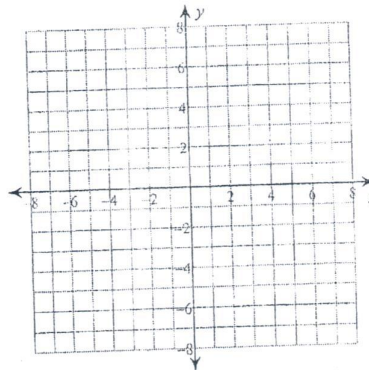


Sketch the graph of each function.

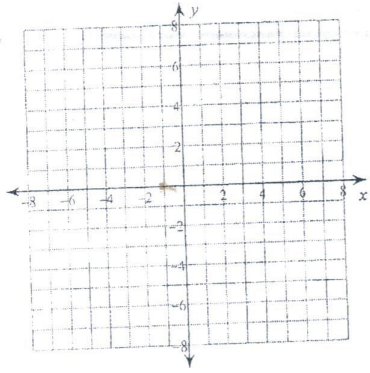
$$9) y = \sqrt{x} - 3$$



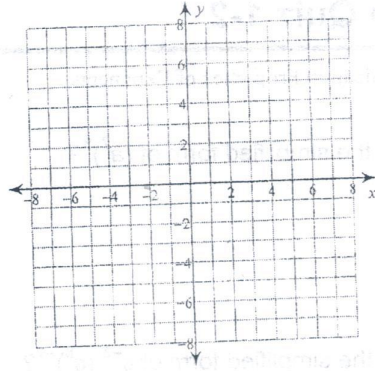
$$10) y = -\sqrt{x+1} + 3$$



11)  $y = \sqrt{x-2} - 1$

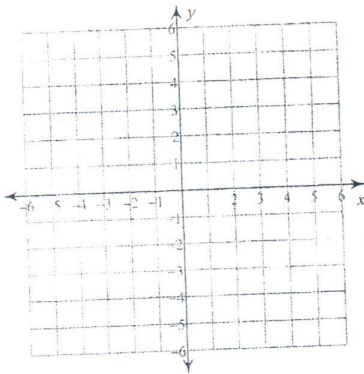


12)  $y = 2\sqrt{x+3}$

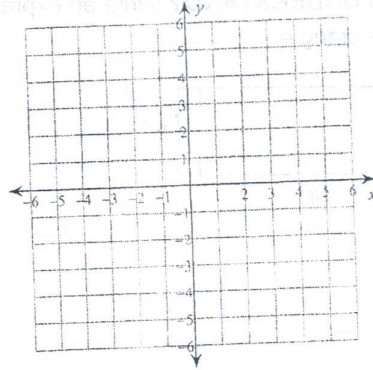


Graph each equation.

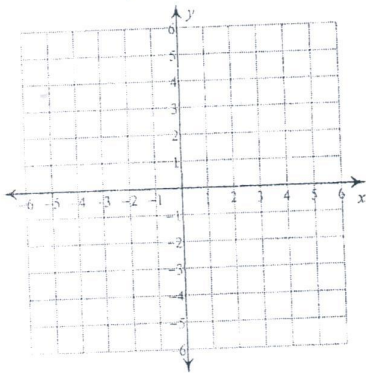
13)  $y = |x| - 1$



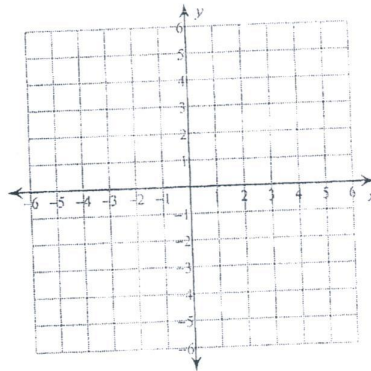
14)  $y = 3|x-2| - 4$



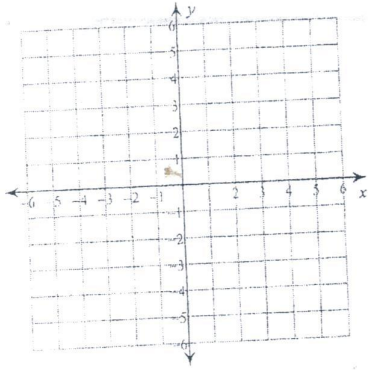
15)  $y = -2|x+3|$



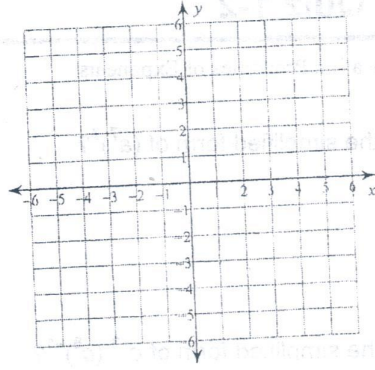
16)  $y = -|x| + 2$



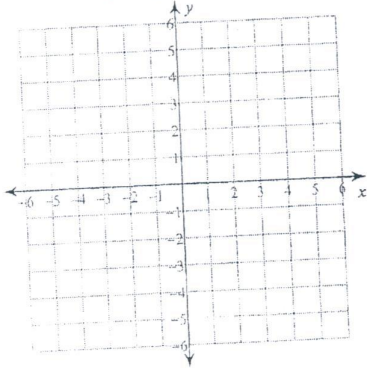
$$17) y = x^3 + 2$$



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



$$19) y = 3(x+2)^3 - 1$$



$$20) y = -(x+3)^3 + 2$$

