Math-3A Name_____ ID: 1

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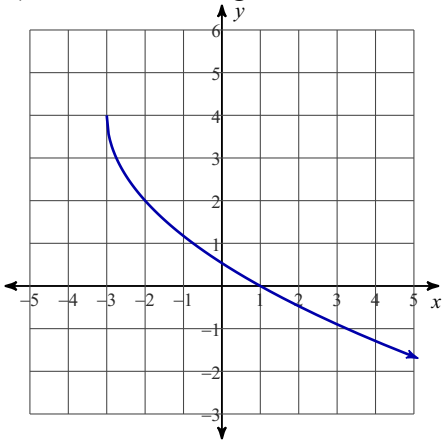
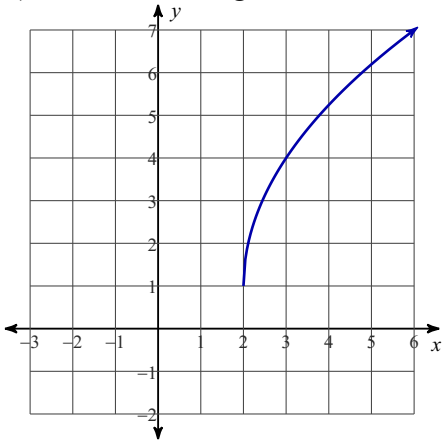
SM3-A HW #1-4 (Abs Val., SQRT)

Date_____ Period____

1) a) What is the equation of the graph?
   b) What is the domain?
   c) What is the range?



2) a) What is the equation of the graph?
   b) What is the domain?
   c) What is the range?



3) a) What is the domain?
   b) What is the range?
   c) What is the "endpoint"?

$y = -4 + 2\sqrt{x - 3}$

4) a) What is the domain?
   b) What is the range?
   c) What is the "endpoint"?

$y = 5 - 2\sqrt{x + 1}$

5) What is the vertex?
$y = 4\left|x - 3\right| + 5$

6) Describe the transformation of the absolute value parent function.
$y = -3\left|x - 5\right| - 7$

7) Describe what it means to say the a parent function has been vertically stretched by a factor of 2.

8) If there is no vertical stretch, what is the value of the vertical stretch factor?

9) Why do we say that there is no such thing as a negative vertical stretch factor?

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10) The pattern we look for when determining how a parent function has been transformed is very similar for each function.

Square function: $y = a(x - h)^2 + k$

Absolute Value function: $y = a|x - h| + k$

Square root function: $y = a\sqrt{x - h} + k$

Rewrite the each of the above functions to show: reflect (x-axis), VSF-3, left 2, up 4:

a) square function:

b) absolute value function

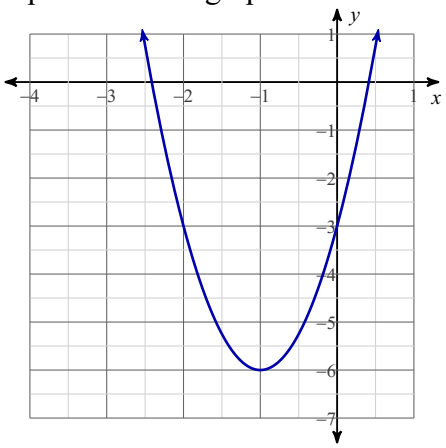
c) square root function

Write the slope-intercept form of the equation of the line through the given points.

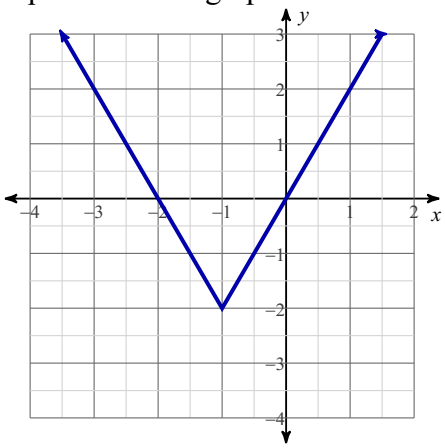
11) through: $(5, -3)$ and $(4, 2)$

12) through: $(2, -3)$ and $(3, 3)$

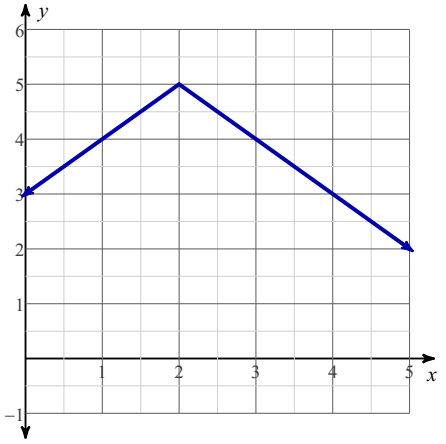
13) a) What is the vertex? (b) What is the equation of the graph?



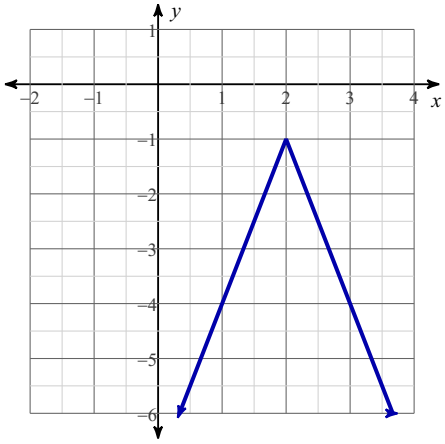
14) a) What is the vertex? (b) What is the equation of the graph?



15) a) What is the vertex? (b) What is the equation of the graph?



16) a) What is the vertex? (b) What is the equation of the graph?



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