Math-3A Name_____ ID: 1

SM3A #13-10 (Review)

Date_____ Period____

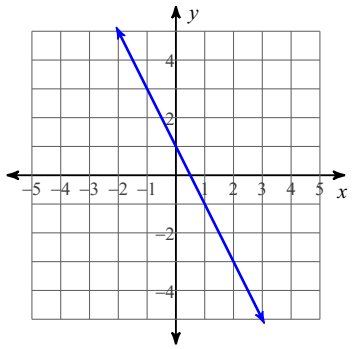
Factor the common factor out of each expression.

1) $-5x^6 + 10x^5 + 25x^4$

A) $5x^5(-x^2 + 2x + 1)$
B) $5x^4(-x^2 + 2x + 5)$
C) $5x^5(-x^2 + x + 1)$
D) $5x^5(-x^2 + 2x + 5)$

Write the slope-intercept form of the equation of each line.

2)



A) $y = -2x + 1$ B) $y = x + 1$
C) $y = -x + 1$ D) $y = 2x + 1$

3) Write the equation of the line that passes through: $(-5, 5)$ and $(-2, 3)$

A) $y = \frac{5}{3}x - \frac{2}{3}$
B) $y = -\frac{2}{3}x - \frac{5}{3}$
C) $y = -\frac{5}{3}x - \frac{2}{3}$
D) $y = -\frac{2}{3}x + \frac{5}{3}$

4) Write the equation of a line that passes through: $(3, -3)$, parallel to $y = -x + 2$

A) $y = -x$ B) $y = x$
C) $y = -2x$ D) $y = 2x$

5) What is the vertex?
$y = 4|x + 3| - 2$

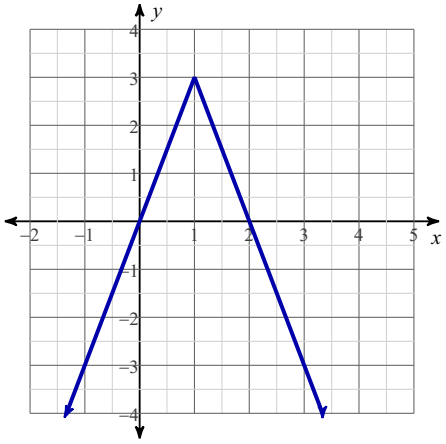
6) Write the equation of a line that passes through: $(-2, -1)$, and is perpendicular to $y = 2x + 3$

A) $y = -\frac{1}{2}x - 2$
B) $y = \frac{5}{2}x - \frac{1}{2}$
C) $y = -\frac{5}{2}x - \frac{1}{2}$
D) $y = -2x - \frac{1}{2}$

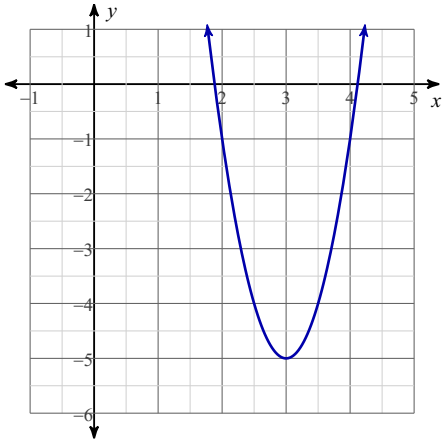
7) a) What is the domain?
b) What is the range?
c) What is the "endpoint"?

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

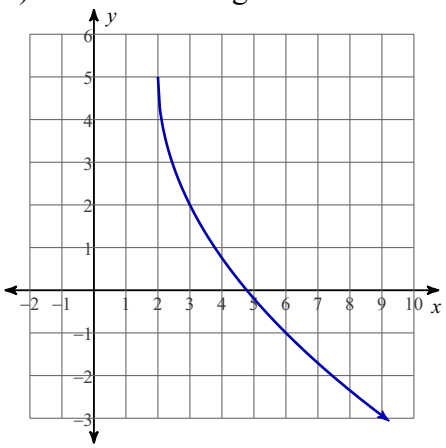
8) What is the equation of the graph?



9) What is the equation for the graph?



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



11) a) Where is the function increasing?
b) Where is the function positive?
c) Where are the extrema and what type are they?
d) How is it related to its parent function? (transformations)
e) What is the end behavior? (use "infinity notation")
f) What is the domain?
g) What is the range?
h) What is the average rate of change between x = -2 and x = -1?