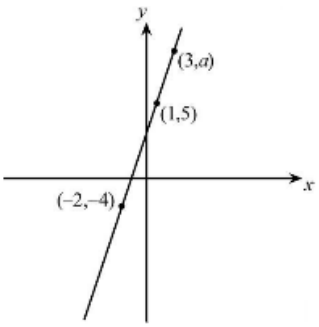
Name:
Teacher:
Period:
Due Date:

Be Good
Why>How>What

NEWT Calculus
Summer Quiz #1

1.) In the standard (x, y) coordinate plane below, a straight line passes through the 3 indicated points. What is the value of a?

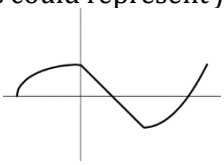
a. 6
b. 7
c. 9
d. 11
e. 12

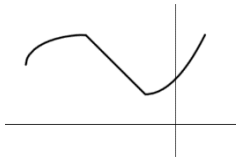


2.) The graph of the parabola $y = a(x - h)^2 + k$ contains $(-6,12)$ and has vertex at $(-7,16)$. What is the value of a?

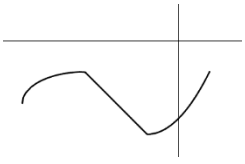
a. -5
b. -4
c. -1
d. 1
e. $\frac{3}{4}$

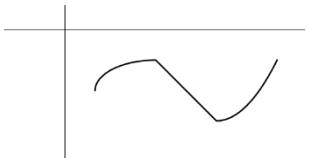
3.) If the graph below represents $f(x)$, which of the following graphs could represent $f(x - 3) - 4$?

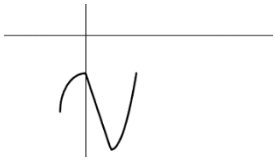


a. 

b. 

c. 

d. 

e. 

4.) The graph of the parabola given by the equation $y = 2(x - 3)^2 - 5$ is reflected across the line $y = x$. What is the reflection of the reflection's vertex?

a. $(3, -5)$
b. $(-5,3)$
c. $(-3, -5)$
d. $(-5, -3)$
e. $(3,5)$

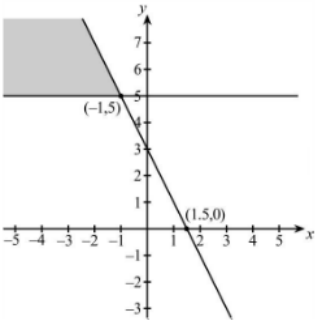
Name:
Teacher:
Period:
Due Date:

Be Good
Why>How>What

NEWT Calculus
Summer Quiz #1

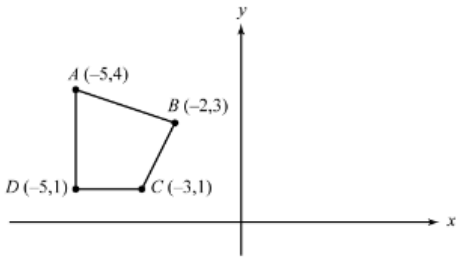
5.) Which of the following systems of inequalities is represented by the shaded region of the graph below?

a. $y \geq -2x + 3$ or $y \leq 5$
b. $y \geq -2x + 3$ and $y \geq 5$
c. $y \leq -2x + 3$ and $y \leq 5$
d. $y \leq -2x + 3$ or $y \geq 5$
e. $y \leq -2x + 3$ and $y \geq 5$



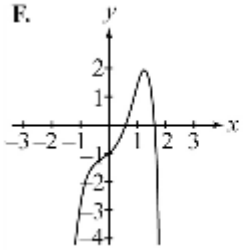
6.) Quadrilateral $ABCD$, shown in the standard (x, y) coordinate plane below, is reflected across the line $y = -2$ to quadrilateral $A'B'C'D'$ (not shown). What are the coordinates of C'?

a. $(-3, -5)$
b. $(-3, -2)$
c. $(-3, -1)$
d. $(5, -2)$
e. $(5,1)$

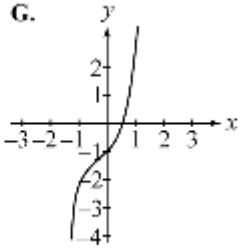


7.) One of the graphs below in the standard (x, y) coordinate plane represents an even function (that is, $f(-x) = f(x)$ for all x). Which one is it?

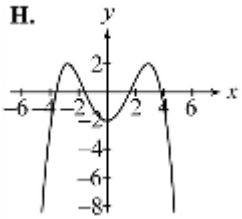
F.



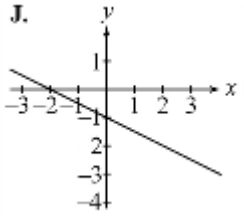
G.



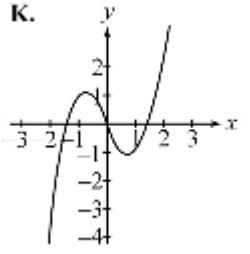
H.



J.



K.



8.) In the standard (x, y) coordinate plane, the graphs of 4 equations $x + 2 = 0, y + 3 = 0, x - 4 = 0$, and $y = 6$ form the boundary of a rectangle. What is the perimeter, in coordinate units, of the rectangle?

a. 15
b. 18
c. 30
d. 36
e. 54

Name:
Teacher:
Period:
Due Date:

Be Good
Why>How>What

NEWT Calculus
Summer Quiz #1

9.) A line graphed in the standard (x, y) coordinate plane contains the points $(1, -3)$ and $(-2,6)$. What is the sum of the x-intercept and the y-intercept of this line?

a. -3
b. 0
c. 1
d. 2
e. 3

10.) In the standard (x, y) coordinate plane, right triangle ABC has vertices at $A(3,4)$, $B(3,8)$ and $C(8,4)$. What is the slope of a line perpendicular to $\overline{BC}$?

a. $-\frac{5}{4}$
b. -1
c. $-\frac{4}{5}$
d. $\frac{4}{5}$
e. $\frac{5}{4}$