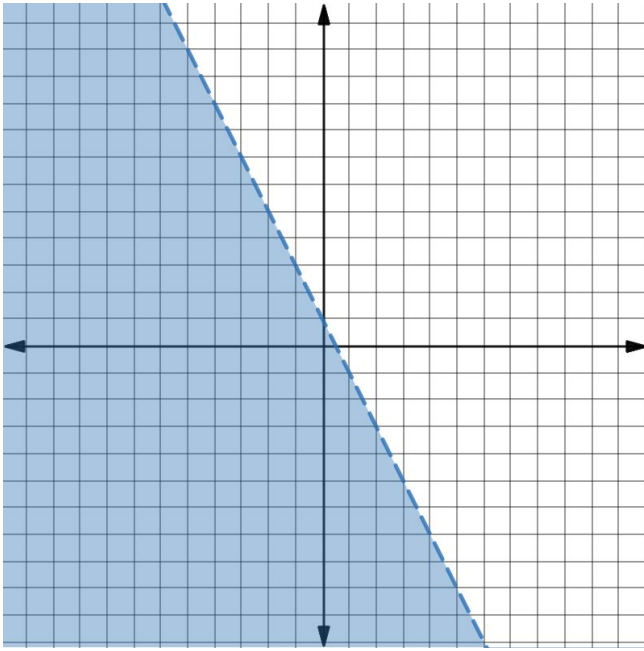


Regents Review

Part I Questions

RR1. What inequality is represented by the graph below?



1) $y < 2x + 1$

2) $y < -2x + 1$

3) $y < \frac{1}{2}x + 1$

4) $y < -\frac{1}{2}x + 1$

RR2. What is an equation of the line that passes through the point $(4, -6)$ and has a slope of -3 ?

1) $y = -3x + 6$

3) $y = -3x + 10$

2) $y = -3x - 6$

4) $y = -3x + 14$

RR3. If point $(-1, 0)$ is on the line whose equation is $y = 2x + b$, what is the value of b ?

1) 1

3) 3

2) 2

4) 0

RR4. Which equation represents the line that passes through the points $(-1, -2)$ and $(3, 10)$?

1) $y = 3x + 1$

3) $y = 4x + 2$

2) $y = 3x - 1$

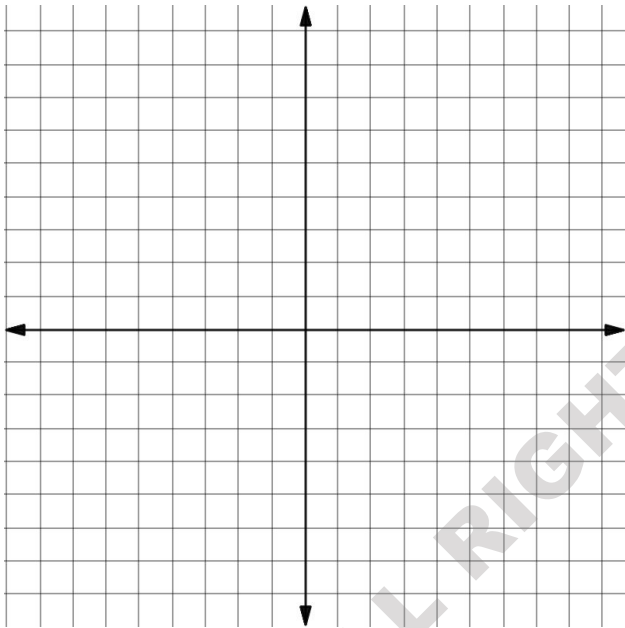
4) $y = 4x - 2$

RR5. The solution of an equation with two variables, x and y , is

- 1) the set of all x values that make $y = 0$
- 2) the set of all y values that make $x = 0$
- 3) the set of all ordered pairs, (x,y) , that make the equation true
- 4) the set of all ordered pairs, (x,y) , where the graph of the equation crosses the y -axis

Open Response Questions

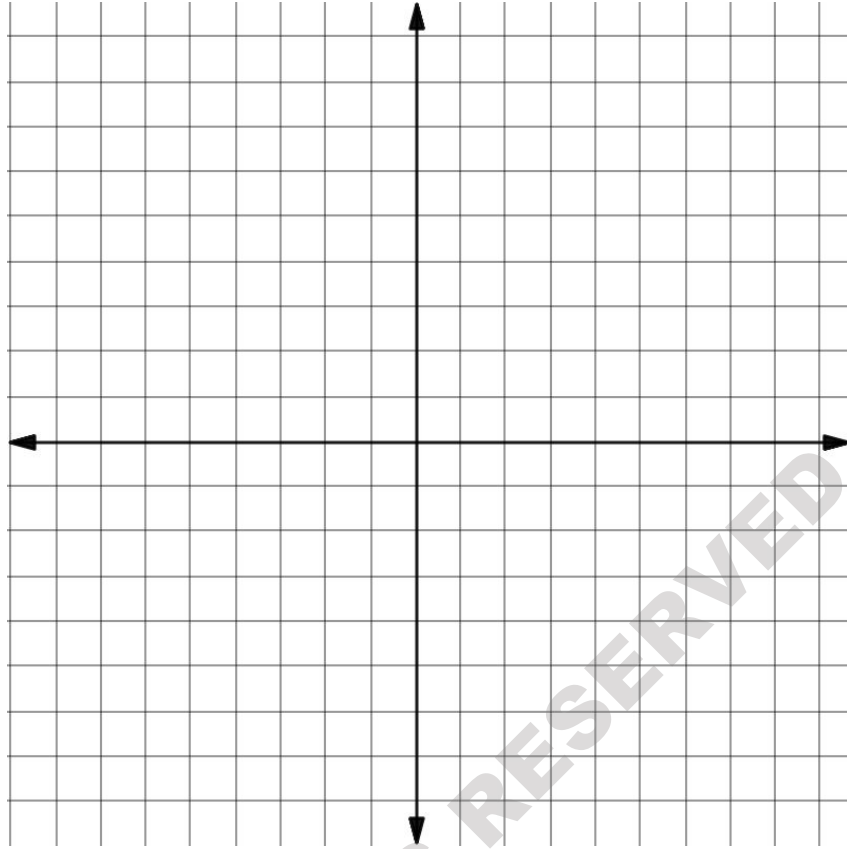
RR6. On the set of axes below, draw the graph of the equation $y = -\frac{3}{4}x + 3$



Is the point $(3, 2)$ a solution to the equation?
Explain your answer based on the graph above.

RR7. Sue and Kathy were doing their algebra homework. They were asked to write the equation of the line that passes through the points $(-3,4)$ and $(6,1)$. Sue wrote $y - 4 = \frac{-1}{3}(x + 3)$ and Kathy wrote $y = \frac{-1}{3}x + 3$. Justify why both students are correct.

RR8. Graph the inequality $y + 4 < -2(x - 4)$ on the set of axes below.



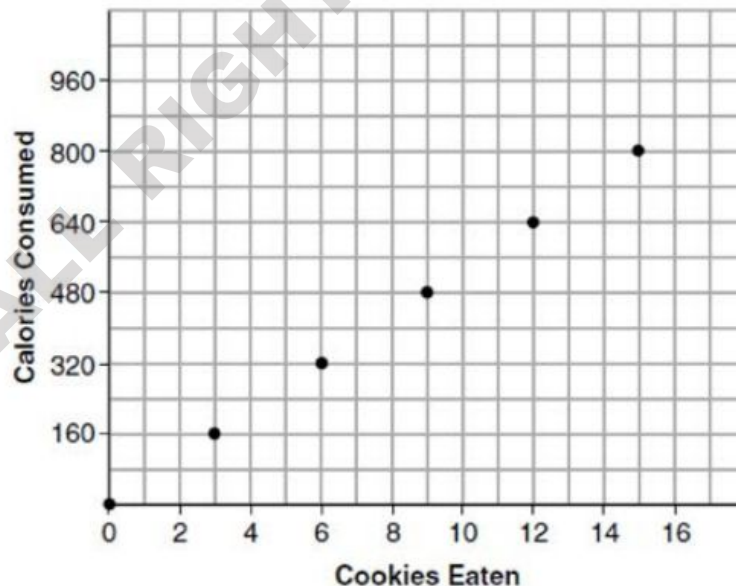
RR9. Joy wants to buy strawberries and raspberries to bring to a party. Strawberries cost \$1.60 per pound and raspberries cost \$1.75 per pound. If she only has \$10 to spend on berries, write an inequality that represents the situation where she buys x pounds of strawberries and y pounds of raspberries?

RR10. David has two jobs. He earns \$8 per hour babysitting his neighbor's children and he earns \$11 per hour working at the coffee shop.

Write an inequality to represent the number of hours, x , babysitting and the number of hours, y , working at the coffee shop that David will need to work to earn a minimum of \$200.

David worked 15 hours at the coffee shop. Use the inequality to find the number of full hours he must babysit to reach his goal of \$200.

RR11. Samantha purchases a package of sugar cookies. The nutrition label states that each serving size of 3 cookies contains 160 Calories. Samantha creates the graph below showing the number of cookies eaten and the number of Calories consumed.



Explain why it is appropriate for Samantha to draw a line through the points on the graph.