

READY, SET, GO!

Name _____

Period _____

Date _____

READY CW D3

Topic: Writing linear equations in standard form and slope-intercept form.

QUIZ

Rewrite the given equation so that they are in slope-intercept form. ($y = mx + b$)

1. $7x - 14y = -56$

2. $-8x - 2y = 6$

3. $15x + 9y = 45$

Rewrite the given equations so that they are in standard form.

($Ax + By = C$, where A, B, and C are whole numbers and A is positive.)

4. $y = 7x - 3$

5. $y = 2x + 9$

6. $y = -4x - 11$

7. $y = \frac{1}{2}x + 8$

8. $y = \frac{3}{5}x - 2$

9. $y = -\frac{1}{6}x + \frac{2}{3}$

SET CW D3

Topic: Writing inequalities from a real world problem. Graphing inequalities.

Watch units for time!

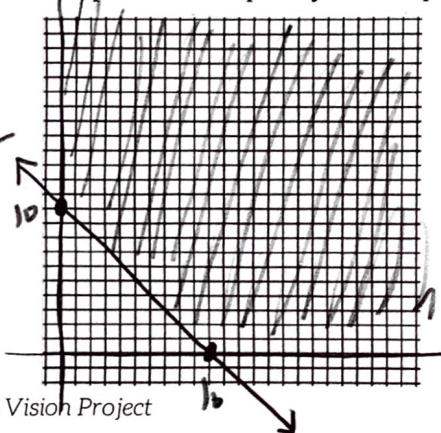
10. On a final for a creative writing course, Ben was required to write a combination of at least 10 poems or paragraphs. Ben knew that each poem would take him 30 minutes to write while a paragraph would only take 10 minutes. Ben was given two hours to complete the exam.

a. Write an inequality to model each constraint. (Hint: One constraint is time and the other is the number of needed items. Let x be the number of poems written and y be the number of paragraphs written.)

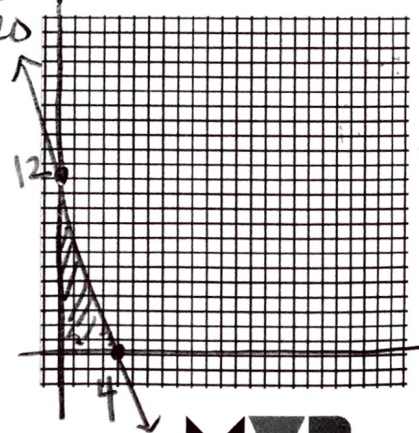
b. Graph each inequality on a separate coordinate grid and shade the solution set for each.

$x + y \geq 10$

ITEMS



$30x + 10y \leq 120$



5.4 Ready - CW D3

①

$$\begin{aligned}
 7x - 14y &= -56 \\
 -14y &= -7x - 56 \\
 \frac{-14y}{-14} &= \frac{-7x - 56}{-14}
 \end{aligned}$$

$$y = \frac{x}{2} + 4$$

$$y = \frac{1}{2}x + 4$$

② $-8x - 2y = 6$

$$\begin{aligned}
 -2y &= 8x + 6 \\
 y &= -4x - 3
 \end{aligned}$$

③ $15x + 9y = 45$

$$\frac{9y}{9} = \frac{-15x + 45}{9}$$

$$y = \frac{-5x + 5}{3}$$

④

$y = 7x - 3$

$$\begin{aligned}
 -7x + y &= -3 \\
 7x - y &= 3
 \end{aligned}$$

⑤

$y = 2x + 9$

$$2x - y = -9$$

⑥

$y = -4x - 11$

$$4x + y = -11$$

⑦

$y = \frac{1}{2}x + 8$

$$\begin{aligned}
 -2 \left(-\frac{1}{2}x + y = 8 \right) \\
 x - 2y = -16
 \end{aligned}$$

⑧

$y = \frac{3}{5}x - 2$

$$\begin{aligned}
 -5 \left(\frac{3}{5}x + y = -2 \right) \\
 3x - 5y = 10
 \end{aligned}$$

⑨

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

$$\begin{aligned}
 6 \left(\frac{1}{6}x + y = \frac{2}{3} \right) \\
 x + 6y = 4
 \end{aligned}$$

SET

⑩

$x = \# \text{ poem}$
 $y = \# \text{ parag.}$

$x + y \geq 10$

$30x + 10y \leq 120$

ITEMS
(min.)
TIME

GO CW D3

Topic: Substituting a value to check if it's a solution

QUIZ

Determine whether $h = 3$ is a solution to each problem.

11. $3(h - 4) = -3$ *yes*
 $3(3 - 4) = -3$
 $3(-1) = -3$
 $-3 = -3 \checkmark$

12. $3h = 2(h + 2) - 1$ *yes*
 $3(3) = 2(3 + 2) - 1$
 $9 = 2(5) - 1$
 $9 = 9 \checkmark$

13. $2h - 3 = h + 6$ *no*
 $2(3) - 3 = 3 + 6$
 $6 - 3 = 9 \times$

14. $3h > -3$ *yes*
 $3(3) > -3$
 $9 > -3 \checkmark$

15. $\frac{3}{5} \leq h \times \frac{1}{5}$ *yes*
 $\frac{3}{5} \leq 3 \times \frac{1}{5}$
 $\frac{3}{5} \leq \frac{3}{5} \checkmark$

16. $\frac{3}{5} > h \times \frac{1}{6}$ *yes*
 $\frac{3}{5} > 3 \cdot \frac{1}{6}$
 $\frac{3}{5} > \frac{1}{2} \checkmark$

Determine the value of x that makes each equation true.

17. $4x - 2 = 8$
 $4x = 10$
 $x = \frac{5}{2} \checkmark$

18. $3(x + 5) = 20$
 $3x + 15 = 20$
 $3x = 5$
 $x = \frac{5}{3} \checkmark$

19. $2x + 3 = 2x - 5$
 $3 = -5$
 $\text{no solution} \checkmark$

20. $4(6x - 1) = 3(8x + 5) - 19$
 $24x - 4 = 24x + 15 - 19$
 $-4 = -4$ *real all solutions*
 $\{x | x \in \mathbb{R}\}$