

Warm-Up

February 21, 2019

A. $2(3x - 7) = -6(4x + 2) + 8$

$6x - 14 = -24x - 12 + 8$

$6x - 14 = -24x - 4$

$6x + 24x - 14 = \boxed{-24x + 24x} - 4$

$30x - 14 = -4$

$30x - 14 + 14 = -4 + 14$

$\frac{30x}{30} = \frac{10}{30}$

$x = \frac{10}{30}$
 $x = \frac{1}{3}$

Solve and Graph

B. $7 \geq 4x - 15$

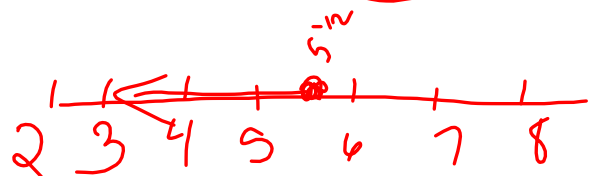
$4x - 15 \leq 7$

$4x - 15 + 15 \leq 7 + 15$

$\frac{4x}{4} \leq \frac{22}{4}$

$x \leq \frac{22}{4}$

$x \leq 5 \frac{2}{4}$ (5.5)
 $x \leq 5 \frac{1}{2}$



$$C. \quad \overset{(20)}{-2x} + \overset{(20)}{\frac{6}{5}} \leq \overset{(20)}{\frac{5}{4}} + \overset{(20)}{2}$$

$$-\frac{40x}{4} + \frac{120}{5} \leq \frac{100}{4} + 40$$

$$-10x + 24 \leq 25 + 40$$

$$-10x + 24 \leq 65$$

$$-10x + 24 - 24 \leq 65 - 24$$

$$\frac{-10x}{-10} \leq \frac{41}{-10}$$

$$x \geq -\frac{41}{10}$$

$$x \geq -4\frac{1}{10}$$

$$D. \quad 6 - 4(6n + 7) \geq 122$$

$$6 - 24n - 28 \geq 122$$

$$6 - 28 - 24n \geq 122$$

$$-22 - 24n \geq 122$$

$$\boxed{22 + 22} - 24n \geq 122 + 22$$

$$\frac{-24n}{-24} \geq \frac{144}{-24}$$

$$n \leq -6$$

$$n \leq -6$$

$$e.) \quad -6(1+7x) + 5(1+6x) \leq -2$$

$$-6 - 42x + 5 + 30x \leq -2$$

$$-6 + 5 - 42x + 30x \leq -2$$

$$-1 - 12x \leq -2$$

$$\boxed{-1} - 12x \leq -2 + 1$$

$$\frac{-12x}{-12} \leq \frac{-1}{-12}$$

$$x \geq \frac{1}{12}$$

2. A taxicab charges \$2.50, plus \$1.78 per kilometre.

A. Write a "let" statement.

Let "d" represent distance travelled

B. Write an equation for the cost of the taxi ride.

$$C = 2.50 + 1.78d$$

Skateboards can be rented from two shops in a park.

Shop Y charges \$15 plus \$3 per hour

Shop Z charges \$12 plus \$4 per hour

A. Write a "let" statement to represent the variable

Let "h" represent the # hours

B. write an expression for each shop

Y	Z
$15 + 3h$	$12 + 4h$

C. Determine the number of hours that will make the cost of shop Y equal to shop Z

$$\begin{aligned}
 Y &= Z \\
 15 + 3h &= 12 + 4h \\
 15 + 3h - 4h &= 12 + \boxed{4h - 4h} \\
 15 - 1h &= 12 \\
 15 - 15 - 1h &= 12 - 15 \\
 -1h &= -3 \\
 \frac{-1h}{-1} &= \frac{-3}{-1} \\
 h &= 3
 \end{aligned}$$

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3, 9 [a,c,e], 11 [a,c], 12 [a,c], 13 [a, b,c], 17 [a,b]

Page 517-518 Answers!

Worksheet practice

6, 10, 12, 18, 20