

Warm-Up

February 26, 2018

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

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

$$\textcircled{6}x + \textcircled{24}x - 14 = \boxed{-24x + 24x} - 12$$

$$30x - 14 = -12$$

$$30x \boxed{-14 + 14} = -12 + 14$$

$$\frac{30x}{30} = \frac{2}{30} \quad x = \frac{1}{15}$$

Solve and Graph

$$B. \quad 7 \geq 4x - 15$$

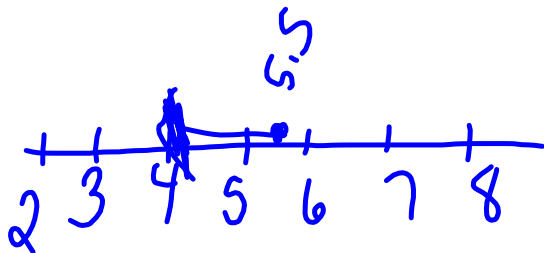
$$4x - 15 \leq 7$$

$$4x \boxed{-15 + 15} \leq 7 + 15$$

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

$$x \leq \frac{22}{4} \quad 5.5$$

$$x \leq 5.5$$



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

LCM

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

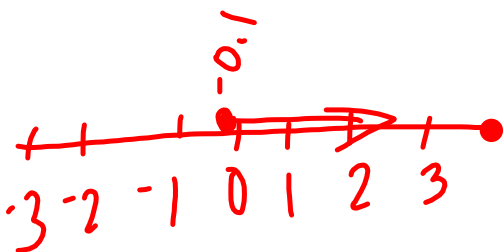
$$-10x + 24 \leq 25$$

$$-10x \boxed{+24-24} \leq 25-24$$

$$-10x \leq 1$$

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

$$x \geq -0.1$$



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

A. Write a "let" statement.

Let "d" represent distance

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

$$C = 2.50 + 1.78d$$

3. State 3 values of the variable that satisfy each inequality.

a) $c < 7$

3, 6.5, $\frac{1}{10}$

b) $a \geq -3$

7, 15, 78.2

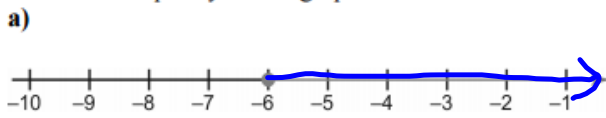
c) $5 < n$

$n > 5$
6, 7, 84

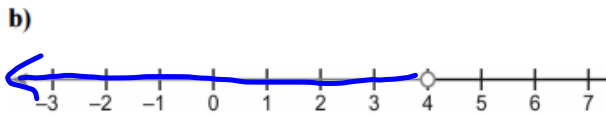
d) $-1 \geq y$

$y \leq -1$
-1, -2.3, -10

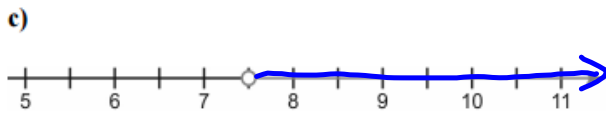
4. Write the inequality that is graphed on each number line.



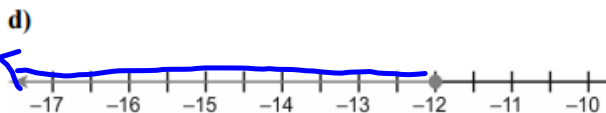
$y \geq -6$



$x < 4$



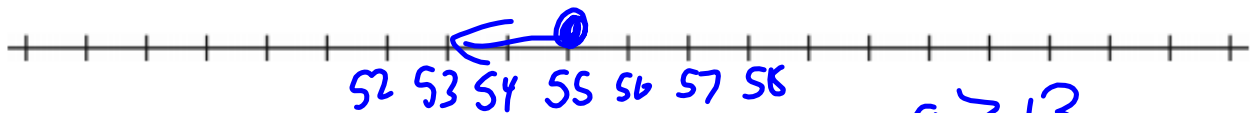
$n > 7.5$ $>$ greater



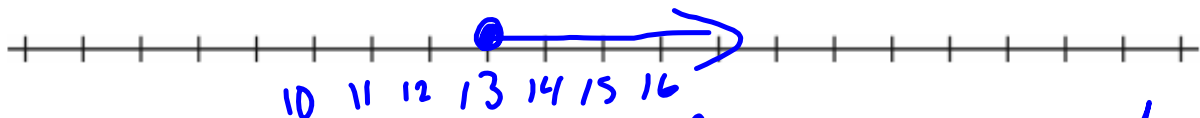
$x \leq -12$

$<$ less

3. Write an inequality to describe each situation, then graph it.
- a) The gas tank in a car contains no more than 55 L of gas. Let statement
Let "L" represent litres $L \leq 55$



- b) The minimum age you must be to watch the movie is 13. $a \geq 13$



Let "a" represent age

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" for hours

B. write an expression for each shop

Shop Y $15 + 3h$

Shop Z $12 + 4h$

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

$$Y = Z$$

$$15 + 3h = 12 + 4h$$

$$15 + 3h - 4h = 12 + \boxed{4h - 4h}$$

$$15 - 1h = 12$$

$$\boxed{15 - 15} - 1h = 12 - 15$$

$$\frac{-1h}{-1} = \frac{-3}{-1}$$

$$h = 3$$

$$\begin{aligned} -h &= -3 \\ h &= 3 \end{aligned}$$

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

— #13 a,b,d
