

Test Tomorrow

1. Solve: $2.4(v - 1.6) = 3.6(-v + 3.2)$

$$2.4v - 3.84 = -3.6v + 11.52$$

$$2.4v + 3.6v - 3.84 = \boxed{-3.6v + 3.6v} + 11.52$$

$$6v - 3.84 = 11.52$$

$$6v - 3.84 + 3.84 = 11.52 + 3.84$$

$$\frac{6v}{6} = \frac{15.36}{6}$$

$$v = 2.56$$

Let's Warm-Up

Graph
(20) (20) (20)

2. Solve: $\frac{x}{4} + \frac{6}{5} \leq \frac{5}{4}$

$$\frac{20x}{4} + \frac{120}{5} \leq \frac{100}{4}$$

$$5x + 24 \leq 25$$

$$5x + 24 - 24 \leq 25 - 24$$

$$\frac{5x}{5} \leq \frac{1}{5} \quad [0.2]$$

$$x \leq \frac{1}{5}$$



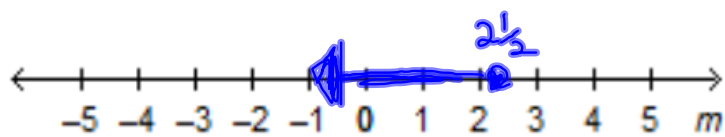
3. Solve: $\frac{3}{4}(5x-6) = \frac{1}{2}(4x+5)$

$$\begin{aligned}
 (4) \quad & \frac{3}{4}(5x-6) = \frac{1}{2}(4x+5) \\
 & \frac{12}{4}(5x-6) = \frac{4}{2}(4x+5) \\
 & 3(5x-6) = 2(4x+5) \\
 & 15x-18 = 8x+10 \\
 & 15x-8x-18 = 8x-8x+10 \\
 & 7x-18 = 10 \\
 & 7x-18+18 = 10+18 \\
 & \frac{7x}{7} = \frac{28}{7} \quad x=4
 \end{aligned}$$

Verify

LS	RS
$\frac{3}{4}(5x-6)$	$\frac{1}{2}(4x+5)$
$\frac{3}{4}(5 \cdot 4 - 6)$	$\frac{1}{2}(4 \cdot 4 + 5)$
$\frac{3}{4}(20-6)$	$\frac{1}{2}(16+5)$
$\frac{3}{4}(14)$	$\frac{1}{2}(21)$
$\frac{42}{4}$	10.5
10.5	

4. Graph the solution of $m \leq 2\frac{1}{2}$ on a number line.



5. Solve: $3(6x - 8) - (5x - 6) = 21$

$$18x - 24 - 5x + 6 = 21$$

$$18x - 5x - 24 + 6 = 21$$

$$13x - 18 = 21$$

$$13x - 18 + 18 = 21 + 18$$

$$\frac{13x}{13} = \frac{39}{13}$$

$$x = 3$$

Solve: $2(p+5) + 4(p-2) = 3(p+6)$

$$2(p+5) + 4(p-2) = 3(p+6)$$

$$2p + 10 + 4p - 8 = 3p + 18$$

$$2p + 4p + 10 - 8 = 3p + 18$$

$$6p + 2 = 3p + 18$$

$$6p - 3p + 2 = \boxed{3p - 3p} + 18$$

$$3p + 2 = 18 - 2$$

$$\frac{3p}{3} = \frac{16}{3} \quad p = \frac{16}{3} = \boxed{5\frac{1}{3}}$$

7. A cell phone company offers two different plans.

Plan A: Monthly fee of \$36, plus \$0.38 per minute

Plan B: Monthly fee of \$30, plus \$0.46 per minute

- Write an equation to determine the time in minutes that results in the same monthly cost for both plans.
- Solve the equation.
- Verify the solution.

Plan A

Plan B

$$36 + 0.38m = 30 + 0.46m$$

$$36 + 0.38m - 0.46m = 30 + \boxed{0.46m - 0.46m}$$

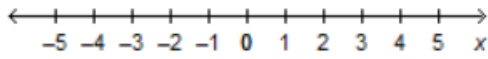
$$36 - 0.08m = 30$$

$$36 - 36 - 0.08m = 30 - 36$$

$$\frac{-0.08m}{-0.08} = \frac{-6}{0.08}$$

$$m = 75$$

8. Solve the inequality $2(x + 8) + 3(x - 4) \leq 4(x + 2)$, then graph its solution.
Show your work.



$$2(x+8) + 3(x-4) \leq 4(x+2)$$

Solve: $\frac{2}{3}(x+4) - \frac{1}{2}(x-3) > \frac{1}{4}(x+8)$

Show your work.

Graph

$$\overset{(12)}{\frac{2}{3}}(x+4) - \overset{(12)}{\frac{1}{2}}(x-3) > \overset{(12)}{\frac{1}{4}}(x+8)$$

$$\frac{24}{3}(x+4) - \frac{12}{2}(x-3) > 3(x+8)$$

$$8(x+4) - 6(x-3) > 3x+24$$

$$8x+32 - 6x+18 > 3x+24$$

$$8x-6x+32+18 > 3x+24$$

$$2x+50 > 3x+24$$

$$2x-3x+50 > \boxed{3x-3x}+24$$

$$-x+50 > 24$$

$$-x+50-50 > 24-50$$

$$-x > -26$$

$$x < 26$$

Extra Practice

Textbook--- Page 308

3, 7

Page 309

8, 10, 11, 12, 16

Practice Test

Page 310

2, 3, 4

Worksheet

- a) Solve this inequality: $9 + 3t > 7 - 2t$
- b) Verify the solution by substituting three different numbers in the inequality.

