

Warm-Up

February 10, 2016

$$a) \quad -5(3p - 4) = -55$$

$$-15p + 20 = -55$$

$$-15p \boxed{+20-20} = -55-20$$

$$\frac{-15p}{-15} = \frac{-75}{-15}$$

$$p = 5$$

$$b) \quad 41 = 12m - 5$$

$$12m - 5 = 41$$

$$12m \boxed{-5+5} = 41+5$$

$$\frac{12m}{12} = \frac{46}{12}$$

$$m = \frac{46}{12} = 3.83$$

$$c) 19 + \frac{n}{4} = 20$$

$$\boxed{19 - 19} + \frac{n}{4} = 20 - 19$$

$$\cancel{(4)} \frac{n}{\cancel{4}} = 1 \cancel{(4)}$$

$$n = 4$$

Solving Equations with Variables on Both sides

1. All variables to left side
2. Simplify like terms
3. solve for variable

A. $6x + 2 = 10 + 4x$

$$6x - 4x + 2 = 10 + \boxed{4x - 4x}$$

$$2x + 2 = 10$$

$$2x + \boxed{2 - 2} = 10 - 2$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$x = 4$$

Left	Right
$6x + 2$	$10 + 4x$
$6(4) + 2$	$10 + 4(4)$
$24 + 2$	$10 + 16$
26	26
	✓

B. $-3x + 7 = 2x - 8$

Verify [check]

$$\textcircled{-3}x - \textcircled{2}x + 7 = \boxed{\cancel{2x - 2x}} - 8$$

$$-5x + 7 = -8$$

$$-5x + \boxed{7 - 7} = -8 - 7$$

$$\frac{-5x}{-5} = \frac{-15}{-5}$$

$$x = 3$$

L	R
$-3x + 7$	$2x - 8$
$-3(3) + 7$	$2(3) - 8$
$-9 + 7$	$6 - 8$
-2	-2

$$c) 3r - 2 = r + 4$$

$$3r - 1r - 2 = \boxed{r - r} + 4$$

$$2r - 2 = 4$$

$$2r \boxed{-2+2} = 4+2$$

$$\frac{2r}{2} = \frac{6}{2} \\ 2r = 3$$

$$d) 1 - \frac{y}{5} = 3$$

$$\boxed{1-1} - \frac{y}{5} = 3-1$$

$$\cancel{0} - \frac{y}{\cancel{5}} = 2^{(5)}$$

$$-y = 10 \\ y = -10$$

$$E. \quad 4k + 4 = -2k - 8$$

$$\textcircled{4}k + \textcircled{2}k + 4 = \boxed{-2k + 2k} - 8$$

$$6k + 4 = -8 \leftarrow$$

$$6k + \boxed{4 - 4} = -8 - 4$$

$$\frac{6k}{6} = \frac{-12}{6}$$

$$k = -2$$

$$4g = 7 - 3g$$

$$4g + 3g = 7 \boxed{-3g + 3g}$$

$$\frac{7g}{7} = \frac{7}{7} \quad \leftarrow$$

$$g = 1$$

$$6(-2 - x) = -5(2x + 4)$$

$$-12 - 6x = -10x - 20$$

$$-12 - 6x + 10x = \boxed{-10x + 10x} - 20$$

$$-12 + 4x = -20$$

$$\boxed{-12 + 12} + 4x = -20 + 12$$

$$\frac{4x}{4} = \frac{-8}{4}$$

$$x = -2$$

Homework Pg 281

show

#6 c,d [check both]

#10 b, d, f

#11 A,C,E

#17 A, B

