Worksheet 3.3, 3.4, 3.7 – Multi-Step Equations – Textbook pages 145-159 and pages 174-179

LEVEL 1

Show all steps to solve each equation.

1)
$$14 - 2x = 6$$

$$2) -7x + 4x = 9$$

3)
$$x + 5x - 5 =$$

1)
$$14-2x=6$$
 2) $-7x+4x=9$ 3) $x+5x-5=1$ 4) $3-\frac{3}{4}x=-6$

LEVEL 2

Show all steps to solve each equation.

5)
$$-8x + 7 = 4x - 5$$

6)
$$2(2x-3) = 4x-6$$

7)
$$6s - 14 = -6s + 5$$

8)
$$7(1-y) = -3(y-2)$$

LEVEL 3

Solve for *y* unless told otherwise.

 $A = \frac{1}{2}bh$

10)
$$9 - y = 1.5x$$

11)
$$1 + 7y = 5x - 2$$

10)
$$9 - y = 1.5x$$
 11) $1 + 7y = 5x - 2$ 12) $\frac{1}{4}y + 3 = -5x$

LEVEL 4

Write an equation and solve the problems. Show your work.
13) A parking garage charges \$3 to park and \$1.50 an hour. How long can you park if you have \$12?
14) When babysitting you make \$6 for the first hour and \$2.50 for every hour after. How many hours do you have to work to make \$16?
15) A health club charges \$5 for swimming classes and \$3 for aerobic classes to its non-members. Members pay \$240 a year and \$2 per swimming class. Assuming you plan to do both activities, how many days do you have to go to the club to justify a membership?
16) Two cars travel the same distance. The first car travels 40 mph and reaches its destination in <i>t</i> hours. The second car travels 55 mph and reaches the destination 3 hours earlier. How long does it take the first car to reach its destination?