## 3-5

## Skills Practice





# Solving Equations with the Variable on Each Side

ALL work on looseleaf.

Checks are 50% of the problem, yes...you must do the checks!

Show your work, also...circle the problem number, write the original problem, box answers.

Be alert to the two special cases...whooooo. But don't imagine ghosts that aren't there.

Write complete equations, then write what undo you are doing to each side, then write another complete equation... rinse and repeat until you get the variable by itself.

Use the DP to get terms out of "parentheses jail" then combine any like terms on the left and on the right side, then, if there are variables on both sides, get them together using undos while avoiding negatives if you can. Finally, do your undos to get the variable "by itself." Always follow the GRE (Golden Rule of Equations).

Always use your turn signal when turning or changing lanes.

Mr. C.

## Solve each equation. Then check your solution.

$$3.2m + 12 = 3m - 31$$

**5.** 
$$7a - 3 = 3 - 2a$$

7. 
$$4x - 9 = 7x + 12$$

**9.** 
$$5 + 3r = 5r - 19$$

**11.** 
$$8q + 12 = 4(3 + 2q)$$

**13.** 
$$6(-3v + 1) = 5(-2v - 2)$$

**15.** 
$$3(8-3t)=5(2+t)$$

**17.** 
$$8(2f-2) = 7(3f+2)$$

**19.** 
$$6(w-1) = 3(3w+5)$$

**4.** 
$$2h - 8 = h + 17$$

**6.** 
$$4n - 12 = 12 - 4n$$

**8.** 
$$-6y - 3 = 3 - 6y$$

10. 
$$-9 + 8k = 7 + 4k$$

**12.** 
$$3(5j + 2) = 2(3j - 6)$$

**14.** 
$$-7(2b - 4) = 5(-2b + 6)$$

**16.** 
$$2(3u + 7) = -4(3 - 2u)$$

**18.** 
$$5(-6-3d)=3(8+7d)$$

**20.** 
$$7(-3y + 2) = 8(3y - 2)$$