

3-3 Equations With Variables on Both Sides

1. $5x = 3x - 10$

Solving Equations Check List

- ✓ 1. Distributive Property
- ✓ 2. Combine Like Terms on SAME SIDE of the = sign
- ✓ 3. Move terms with variables to one side and the constants to the other
- ✓ 4. SOLVE!

2. $6x + 3 = 8x - 2$

3. $5m + 3 = 3(m + 3)$

5. $2(3y + 7) + 7 = -y$

6. $a - 5 = 8 - (9 + a)$

Solving Word Problems

Steps to remember...

1. _____
2. _____
3. _____
4. _____
5. _____

1. You want to buy a bouquet of roses and a vase for your girlfriend. The roses are sold separately at \$1.25 per rose. The vase costs \$12. If you only bring \$27 to the flower store, write and solve an equation to find how many roses you can buy.

2. Mary is in college and wants to call her mother. Because it is a long distance call, Mary's cell phone service charges her \$1.75 for the connection and then \$0.35 per minute. Mary is only willing to spend \$9 on the call. Write an equation and solve to find the number of minutes Mary can talk with her mother on the phone.

3. Jimmy decides he wants to begin his own lawn mowing business. He invests \$500 in a brand new lawn mower and plans to charge \$25 per lawn. How many lawns will Jimmy have to mow to make a profit of \$200 for his new business?

1. $2x = 11x + 45$

2. $4k - 3 = 3k + 4$

3. $-8n + 14 = -2(3n + 7)$

4. $8 - g = 2g - 1$

5. Timmy bought one pair of pants and several pairs of socks. The pants cost \$24.95, and the socks cost \$5.95 per pair. Write and solve an equation to find how many pairs of socks Timmy bought if his total came to \$42.80?