



Solve each equation below and check your solution.

1. $-3a = 39$	Check	2. $-11 + y = -35$	Check
3. $-\frac{z}{4} = 7$	Check	4. $5y - 2 = -7.5$	Check
5. $-4.4 = \frac{1}{2}x - 0.4$	Check	6. $6 - x = 24$	Check
7. $20 - \frac{3}{5}p = 56$	Check	8. $\frac{4}{9}c - \frac{5}{6} = \frac{2}{3}$	Check

For #'s 9 – 13, set up an equation that represents the situation. Solve and answer the question. Remember to define what your variable represents. Show all work on a separate sheet of paper.

9. Translate into an equation and solve. Two times a number is increased by seven and the result is 93. Find the number.
10. Sam went to CVS and bought some notepads and a magazine for \$5. If he spent a total of \$17.80 and each notepad cost \$3.20, how many notepads did he purchase?
11. Will rented a bike in Central Park for the afternoon. He was charged a rental fee of \$18 and \$4 per hour. If his bill totaled \$48, how many hours did he rent the bicycle?
12. In August, Cory begins school shopping for his triplet daughters. One day, he bought 10 pairs of socks for \$2.50 each and 3 pairs of shoes for d dollars each. He spent a total of \$135.97. Find the cost of one pair of shoes.
13. A checking account is set up with an initial balance of \$9400, and \$800 is removed from the account at the end of each month for rent. If no other transactions are made on the account, how many months will it take for the balance to reach \$3000?
14. Jack said that the equation below can be solved using the division property of equality. Jill says that it should be solved using the multiplication property of equality. Who do you agree with? Support your response with mathematical evidence?

$$\frac{2}{3}x = 16$$

15. **Error Analysis:**

- a) Describe and correct the error in finding the solution.

$$-6 + 2x = 10$$

$$-6 + \frac{2x}{2} = \frac{10}{2}$$

$$-6 + x = 5$$

$$+6 \quad +6$$

$$x = 11$$

- b) How can the person who solved this equation determine that an error was made?