

**Solve Multi-Step Equations & Word Problems -1**

Name: \_\_\_\_\_

**Solve each equation and check your answer. Calculators are allowed. Show work!**

1.  $3 = 12x - 8x$

2.  $7(a + 3) + 21 = 91$

3.  $3y + 10 = 40$

4.  $2(y - 1) + 1 = 3$

5.  $\frac{1}{4}(4u + 12) - 1 = 12$

6.  $8 - 3(2m - 4) = -28$

7.  $7 - 2x = -3$

8.  $-5 - \frac{p}{3} = -12$

**Define variables, write and solve an equation based on the information below. Check your answer.**

9. The cost for Mr. Kaplan's admission plus two drinks is \$16. If admission costs \$13, how much did each drink cost?
10. How many boys are in a class of thirty-five students if girls outnumber boys by five.
11. In a recent election, the winning candidate had 2,700 more votes than the loser. If the total number of votes was 13,300, how many votes did the winner receive?
12. The Valley View High School has decided to print their own T-shirts for various teams and clubs. The equipment necessary to print the shirts costs \$1,179. The shirt costs \$4.75 and will be sold for \$7.00. How many shirts must be sold to cover the initial investment?
13. Find four consecutive numbers whose sum is 178.
14. Heather has three times as much candy as Susa. If they have a total of 32 pieces of candy, how many pieces does each girl have?

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**Solve Multi-Step Equations & Word Problems -2**

Name: \_\_\_\_\_

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11.  $4 - (2x - 3) = 11$

12.  $5x - 7 = 3$

13.  $5(x + 2) = 20$

14.  $-(x - 2) = 5$

15.  $3.4(s - 5) - 2.1 = 8.1$

16.  $7 - 2(m - 4) = -3$

17.  $3 - (4b - 7) = 6$

18.  $-8 - \frac{k}{6} = 2$

**Define variables, write and solve an equation based on the information below. Check your answer.**

19. Three kids are eating the same lunch from the Healthy Snack Shack. Their total tip is \$2.50 and they pay \$11.50. What does each child's meal cost?
20. Manuel opened a savings account with an initial deposit of \$177. If he wants to save \$500 (not counting interest) during the next 19 weeks, how much must he save each week?
21. The sum of ten times a number and 24 is 74. What is the number?
22. If a number is decreased by 8 and the difference is multiplied by 10, this product is 50. Find the number.
23. Nick O'Time, the plumber, charges \$30 per hour. His brother Ivan, the plumber's helper, charges \$20 per hour. Nick starts working on a job. Four hours later, Ivan joins him and both work until the job is done. Let  $t$  be the number of hours Nick worked. Write one equation to find out how much both earned.
24. Find three consecutive even numbers whose sum is 180.

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