

Name _____ Period _____

Score:

_____/_____
_____%

HW 3-5: Writing Two-Step Equations

For each story problem, write an equation and then solve.

1. CONSTRUCTION Carlos is building a screen door. The height of the door is 1 foot more than twice its width. What is the width of the door if it is 7 feet high?

Equation: _____

Solve: _____

2. GEOMETRY A rectangle has a width of 6 inches and a perimeter of 26 inches. What is the length of the rectangle?

Equation: _____

Solve: _____

3. EXERCISE Ella swims four times a week at her club's pool. She swims the same number of laps on Monday, Wednesday, and Friday, and 15 laps on Saturday. She swims a total of 51 laps each week. How many laps does she swim on Monday?

Equation: _____

Solve: _____

4. SHOPPING While at the music store, Drew bought 5 CDs, all at the same price. The tax on his purchase was \$6, and the total was \$61. What was the price of each CD?

Equation: _____

Solve: _____

5. STUDYING Over the weekend, Koko spent 2 hours on an assignment, and she spent equal amounts of time studying for 4 exams for a total of 16 hours. How much time did she spend studying for each exam?

Equation: _____

Solve: _____

6. FOOD At the market, Meyer buys a bunch of bananas for \$0.65 per pound and a frozen pizza for \$4.99. The total for his purchase was \$6.94, without tax. How many pounds of bananas did Meyer buy?

Equation: _____

Solve: _____

7. HOME IMPROVEMENT Laura is making a patio in her backyard using paving stones. She buys 44 paving stones and a flowerpot worth \$7 for a total of \$73. How much did each paving stone cost?

Equation: _____

Solve: _____

8. TAXI A taxi service charges you \$1.50 plus \$0.60 per minute for a trip to the airport. The distance to the airport is 10 miles, and the total charge is \$13.50. How many minutes did the ride to the airport take?

Equation: _____

Solve: _____

| | |
|---|---|
| <p>9) FUND-RAISING The school puppet club needs \$400 for new puppets. With only \$250 in their account, they decide to raise the rest by selling candy bars for a profit of \$0.50 per bar. How many candy bars will they need to sell?</p> <p>Equation: _____</p> <p>Solve: _____</p> | <p>10) DINING You and your friend's lunch totaled \$16. Your lunch cost \$2 more than your friend's. How much was your friend's lunch?</p> <p>Equation: _____</p> <p>Solve: _____</p> |
| <p>11) FINANCIAL LITERACY The cost for a certain music plan is \$9.99 per year plus \$0.25 per song you download. If you paid \$113.74 one year, find the number of songs you downloaded.</p> <p>Equation: _____</p> <p>Solve: _____</p> | |

Write an equation for each.

- | | |
|--|--|
| 12. One less than four times a number is 11. | 18. The quotient of a number and 2, minus eight is 10. |
| 13. Nine more than three times a number is -6. | 19. Nine more than the quotient of a number and 4 is 12. |
| 14. Six less than six times a number is 12. | 20. Four less than the quotient of a number and 3 is -10. |
| 15. Five less than the quotient of a number and 3 is 4 | 21. The difference between 5 times a number and 3 is 12. |
| 16. Seven increased by twice a number is 1. | 22. Three less than the sum of a number and 6 is 1. |
| 17. Fifty less six times a number is -15. | 23. Eight more than the difference of a number and 5 is 3. |

MULTIPLE CHOICE: Choose the equation that best fits each situation.

24) For a membership to an athletic club, it cost \$150 to join and \$28 per month of membership. Write an equation to figure out how many months it will be before the total cost is \$290.

- A) $150 + 28m = 290$ B) $150 = 290 + 28m$ C) $28 + 290m = 150$ D) $290 = 150m + 28$

25) Translate the following sentence into an equation. Two less than nine times a number is -2.

- A) $2 - 9n = -2$ B) $-9n - 2 = -2$ C) $9n - 2 = -2$ D) $9n + 2 = -2$

26) Translate the following sentence into an equation. The quotient of a number and -2, less 10, is -18.

- A) $\frac{n}{-2} = -18 - 10$ B) $10 - \frac{n}{-2} = -18$ C) $\frac{n}{-2} - 18 = -10$ D) $\frac{n}{-2} - 10 = -18$

27) Translate the following sentence into an equation. Nine is the sum of 1 and two times a number.

- A) $1 = 9 + 2n$ B) $9 = 1 + 2n$ C) $9 = 1(2n)$ D) $9 = 2 + n$

28) Translate the following sentence into an equation. Then find the number. Seven, added to two times a number, equals -3.

- A) $7 + 2n = -3; -5$ B) $7 = -3 + 2n; -5$ C) $7 = -3 + 2n; 5$ D) $7 + 2n = -3; 5$