

NAME _____

Module 4 Solving Problems Using Linear Equations of One Variable
Lesson 1 Translating Sentences into Algebraic Equations



additional practice

Write an equation to represent each sentence or situation. If no variable is given, a variable other than n may be used.

1. Seven less than a number is 30.

$$\underline{n - 7 = 30}$$

3. The product of 12 and a number is 60.

$$\underline{12n = 60}$$

5. A number divided by three is 15.

$$\underline{n \div 3 = 15}$$

7. The sum of 12 and twice a number is 26.

$$\underline{12 + 2n = 26}$$

9. The product of seven and a number, increased by four, is
- -10
- .

$$\underline{7n + 4 = -10}$$

11. The sum of three times a number and six is equivalent to two times the number, decreased by 10.

$$\underline{3n + 6 = 2n - 10}$$

13. A 20-foot board is cut into two pieces. The length of the shorter board is two feet longer than half the length of the longer board.

$$\underline{\left(\frac{b}{2} + 2\right) + b = 20}$$

15. Jack's score was eight more than Rick's. The product of their scores was 240.

$$\underline{R(R + 8) = 240}$$

2. A number increased by four is three.

$$\underline{n + 4 = 3}$$

4. One less than a number is 15.

$$\underline{n - 1 = 15}$$

6. Eight more than a number is the same as three times the number.

$$\underline{n + 8 = 3n}$$

8. A number is divided by three; this quotient is increased by seven. The result is 11.

$$\underline{\frac{n}{3} + 7 = 11}$$

10. The product of seven and the sum of a number and four is 56.

$$\underline{7(n + 4) = 56}$$

12. Four times the quantity of a number plus six is the same as the product of six and the number.

$$\underline{4(n + 6) = 6n}$$

14. A car's current value is \$4,000. The current value is
- $\frac{5}{16}$
- of its original price.

$$\underline{\$4,000 = \frac{5}{16}P}$$

16. After three bags of topsoil were added, a garden plot contained nine bags of topsoil.

$$\underline{3 + t = 9}$$

17. A rectangle's width is three less than twice its length.

$$w = 2l - 3$$

18. Light bulbs are packaged in a crate that holds six rows of n light bulbs each. The crate holds a total of 72 light bulbs.

$$6n = 72$$