NAME

Module 3 **Solving Linear Equations**

of One Variable

Lesson 2 Solving Equations by Inspection

Lesson Objectives

- · Solve algebraic equations "by inspection."
- Write the solution to an equation in proper notation.
- Check the solution to an equation.

Instead of a blank in an equation, we can use a variable ___ to represent an unknown number.

Two examples of variables are

__. (Answers may vary.)

A solution of an equation is a number that makes the equation true Solving an equation by looking and reasoning is called solving by inspection To check a solution, substitute it for the variable in the equation. If this produces a true statement, then the solution is correct.

1 Solve: 10 + b = 15

Solution: $b = \frac{5}{}$

Check: 10 + b = 15

10 + <u>5</u> ? 15

15 = 15 **✓**

Triple means $\frac{3}{2}$ times.



2 Solve: 4k = 28

Solution: $k = \frac{7}{}$

Check: 4k = 28

 $(4)(\frac{7}{2}) \stackrel{?}{=} 28$

28 = 28 ✓

Example: $\frac{18}{C} = 3$

Solution: $C = \frac{6}{}$

Check: $\frac{18}{C} = 3$ $\frac{18}{6} \stackrel{?}{=} 3$

3 = 3 \checkmark