



## Quick Review

- An equation is a statement that two expressions are equal.

$2x + 1$  is an algebraic expression.

7 is an expression.

$2x + 1 = 7$  is an equation.

This equation can be expressed in words as:

*One more than double a number is seven.*

- Here's how to write an equation from a statement.

1. Choose a letter for the variable.
2. Write an algebraic expression to represent the relationship described.
3. Write an equals sign between the expression and the constant term.

*Five more than a number is 20.*

Let  $p$  represent the number.

Five more than  $p$ :  $p + 5$

The equation is:  $p + 5 = 20$

*A number subtracted from ten is 4.*

Let  $x$  represent the number.

$x$  subtracted from ten:  $10 - x$

The equation is:  $10 - x = 4$

*A number divided by two is 8.*

Let  $n$  represent the number.

$n$  divided by two:  $\frac{n}{2}$

The equation is:  $\frac{n}{2} = 8$

### HINT

The words "is" and "equals" are written as an equals sign (=) in an equation.



## Practice

1. Match each sentence with an equation. The first one is done for you.

A number divided by three is 4.

Twenty subtract a number equals 6.

Nine subtract one-half a number is 6.

Three added to double a number is 11.

$20 - n = 6$

$2n + 3 = 11$

$\frac{n}{3} = 4$

$9 - \frac{n}{2} = 6$

2. Write an equation for each sentence.

Let  $n$  represent the number.

a) Eight less than a number is 2.  $n - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

b) One-half a number equals 5.  $\underline{\hspace{4cm}}$

c) Four more than double a number is 20.  $\underline{\hspace{4cm}}$

d) Six plus three times a number is 9.  $\underline{\hspace{4cm}}$

3. Write a sentence for each equation.

a)  $n - 6 = 12$

$\underline{\hspace{4cm}}$

b)  $\frac{x}{2} = 10$

$\underline{\hspace{4cm}}$

c)  $2p + 10 = 14$

$\underline{\hspace{4cm}}$

4. Write an equation for each sentence.

Let  $x$  represent the number.

a) Three more than a number is 12.  $\underline{\hspace{4cm}}$

b) Three less than a number is 12.  $\underline{\hspace{4cm}}$

c) Three times a number equals 12.  $\underline{\hspace{4cm}}$

d) Three more than three times a number is 12.  $\underline{\hspace{4cm}}$

e) Three subtracted from three times a number equals 12.  $\underline{\hspace{4cm}}$

5. Write an equation for each sentence.

a) The cost of 2 adult tickets at \$5 each and  $n$  child tickets at \$3 each is \$25.

$\underline{\hspace{4cm}}$

b) William's age 4 years ago was 12. Let  $a$  years represent William's age now.

$\underline{\hspace{4cm}}$

c) The perimeter of a square with side length  $s$  is 28.

$\underline{\hspace{4cm}}$