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: $p + 5 = 20$

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

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: $\dfrac{n}{2}$

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

Practice

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

A number divided by three is 4. $20 - n = 6$

Twenty subtract a number equals 6. $2n + 3 = 11$

Nine subtract one-half a number is 6. $\dfrac{n}{3} = 4$

Three added to double a number is 11. $9 - \dfrac{n}{2} = 6$

2. Write an equation for each sentence.
Let n represent the number.

a) Eight less than a number is 2. $n - \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

b) One-half a number equals 5. _____

c) Four more than double a number is 20. _____

d) Six plus three times a number is 9. _____

3. Write a sentence for each equation.

a) $n - 6 = 12$

_____

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

_____

c) $2p + 10 = 14$

_____

4. Write an equation for each sentence.
Let x represent the number.

a) Three more than a number is 12. _____

b) Three less than a number is 12. _____

c) Three times a number equals 12. _____

d) Three more than three times a number is 12. _____

e) Three subtracted from three times a number equals 12. _____

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.

_____

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

_____

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

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