Using Variables to Represent Two Quantities - Independent Practice Worksheet
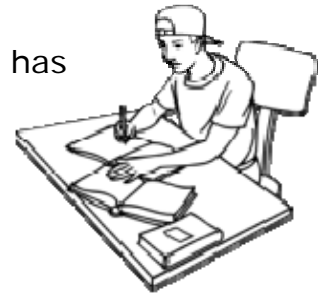
Solve the following word problems:

1) This equation shows how the total number of comics Andre has read depends on the number of months he has been a library member.

$b = 9m$

The variable m denotes the number of months he has had a membership, and the variable b denotes the number of comics he has read. After 1 month of membership for the library, how many comics will Andrew have read?

a) 9 books   b) 7 books

c) 6 books   d) 4 books

2) This equation shows how the number of plants Matt has on his farm is related to the number of packets of fertilizer he just bought.

$f = 3p$

The variable f represents the number of fertilizer packets he bought, and the variable p represents the total number of plants in the garden. With 6 seed packets of fertilizer, how many total plants can Matt have in his garden?

a) 3   b) 8

c) 15   d) 18

3) h = 4a
The above equation shows how tree height depends on the tree's age. The variable a represents the age and the variable h represents the height of the tree in inches. How tall was the tree when it was 5 years old?

a) 16   b) 17

c) 20   d) 19

4) Below shows how the total amount of toffees that Fred's factory has produced depends on the number of days.

$t = 11d$

The variable d represents the number of days the factory takes and the variable t represents the total number of toffees produced. After 1 day, how many toffees have been produced by Fred's factory?

a) 11   b) 5

c) 14   d) 17

5) $p = 3e$
The above equation shows the number of erasers Brown has as related to the number of pencils he buys.

The variable e represents the number of erasers Brown has and the variable p represents the total number of pencils. With 6 additional erasers, how many total pencils does Brown have?

a) 43 erasers   b) 47 erasers

c) 18 erasers   d) 36 erasers

6) This equation shows how the total number of balls Sally has, is related to the amount of bats she has.

$n = 2d$

The variable d represents the number of bats she has and the variable n represents the total number of balls. With 5 bats, how many total balls did Sally own?

a) 15 balls   b) 10 balls

c) 20 balls   d) 5 balls

7) This equation shows the total number of necklaces Louis has as related to the number of diamond necklaces.

$c = s$

The variable s represents the number of additional necklaces and the variable c represents the total number of diamond necklaces. If Louis has 3 necklaces in his hand, how many are diamond necklaces?

a) 2 necklaces   b) 1 necklace

c) 3 necklaces   d) 4 necklaces

8) This equation represents the total number of hockey sticks Ivan has as related to the pucks he has.

$h = 8p$

The variable p represents the number of pucks he has and the variable h represents the total number of hockey sticks he owns. If he buys 2 new pucks how many hockey sticks will he buy?

a) 10   b) 50

c) 13   d) 16

9) $12p = w$

The above equation shows the total number of game CDs Andre has, depends on the money he spent on additional game CDs.

The variable w represents the money he spent on CDs and the variable p represents the total number of game CDs.

If he spent $60 on games, how many CDs did he get?

a) 2   b) 5

c) 4   d) 6

10) This equation shows how the number of dolls made by Judy depends on the number of weeks she has spent making them.

$l = 4n$

The variable n represents the number of weeks Judy has spent making dolls. The variable l represents the total number of dolls. After 5 weeks, how many dolls does Judy make in total?

a) 11   b) 5

c) 20   d) 12