

# EQUATIONS WORKSHEET

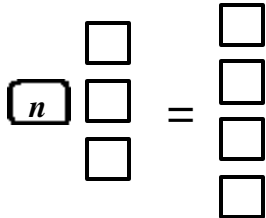
## Equations

1) Describe the difference between an equation and an expression. Name at least 2 things.

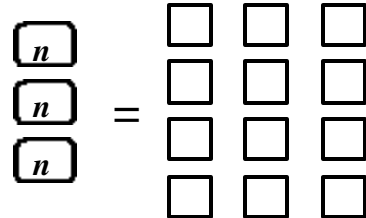
2) Why must an equation balance? How do you make sure it balances?

3) Write equations for the following, with  $n$ ,  $\square$ , and  $\blacksquare$ -1:

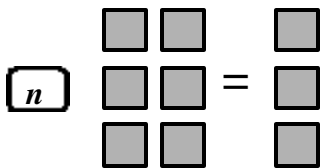
a) \_\_\_\_\_



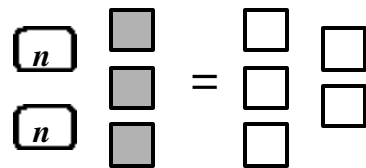
b) \_\_\_\_\_



c) \_\_\_\_\_



e) \_\_\_\_\_



4) Write equations from the following:

a) Seven more than a number,  $n$ , is 21.

a) \_\_\_\_\_

b) One-third of a number is ten.

b) \_\_\_\_\_

c) Twice the distance is 14 meters.

c) Name: \_\_\_\_\_

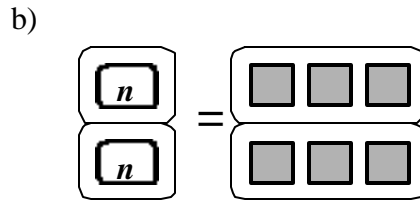
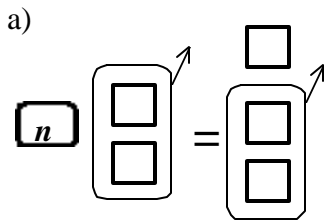
\_\_\_\_\_

d) Cost equals the price minus the discount.

d) \_\_\_\_\_

## Solving Equations

5) Describe the situation you think is being represented in each diagram.



6) Solve for  $n$  in question 3.

a)  $n = \underline{\hspace{2cm}}$

b)  $n = \underline{\hspace{2cm}}$

c)  $n = \underline{\hspace{2cm}}$

d)  $n = \underline{\hspace{2cm}}$

7) Why should you always check your answer when solving an equation?

8) In the two-step equation,  $2n + 3 = 9$ , which inverse operation should you perform first? Why? Is this always true?

## Formulas

9) If the area of a rectangle is 20 square meters and the length of the shorter side is 4 meters, what is the length of the longer side?

10) If the perimeter of a rectangle is 20 meters and the shorter side is 4 meters, what is the length of the longer side?

11) Why can you treat formulas like equations? Give an example.