

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Goal 6.1**

I can solve linear equations.

Expression

versus

Equation

A **linear equation** is

To **solve** means

**Example** Solve the following equations by inspection.

a.  $x + 4 = 8$

b.  $x - 2 = -12$

c.  $-4x = 12$

d.  $\frac{x}{-5} = 4$

**Example** Solve the following equations using models or diagrams.

a.  $3c = -9$

b.  $\frac{w}{4} = 3$

Inspecting is

Modelling is

True mathletes

Operation	Inverse Operation
Addition	
Subtraction	
Multiplication	
Division	

**Example** Solve using the inverse operation.

a.  $x + 3 = -11$

b.  $x - 7 = 15$

c.  $17x = -51$

d.  $\frac{x}{-4} = 7$

**Example** Show whether  $x = -3$  is a solution to each equation.

a.  $x - 4 = -7$

b.  $4x = 12$

c.  $\frac{-x}{3} = 1$

**Example** Oscar can bake 23 cookies in an hour. He wants to bake 276 cookies for his party.a. Write an equation in the form  $ax = b$  to represent this problem. What does your variable represent?

b. How many hours will it take Oscar to bake 276 cookies?