

### Story Problem

Hanna has \$11.20 in a jar that contains only nickels and dimes. There are 140 coins in the jar. How many of each coin does Hanna have?

#### Let Statements

Let  $n$  = number of nickels

Let  $d$  = number of dimes

#### System

$$n + d = 140$$

$$0.05n + 0.10d = 11.20$$

Solve for a single variable.

Substitute and Solve.

Plug back in to find the other variable.

Write the solution.

### Story Problem

A total of 243 adults and children are at a movie theater. There are 109 more adults than children in the theater. How many adults are there? How many children are there?

#### Let Statements

Let  $a$  = number of adults

Let  $c$  = number of children

#### System

$$a + c = 243$$

$$c + 109 = a$$

Solve for a single variable.

Substitute and Solve.

Plug back in to find the other variable.

Write the solution.

### Story Problem

Tamika would like to go fishing at one of two catfish farms close to her home. Floyd's Catfish Farm charges a \$5 fee to fish plus \$2 per pound of fish caught. The Miller's Catfish Farm does not charge a fee to fish, but charges \$3 per pound of fish caught. When is the charge the same?

#### Let Statements

Let  $p$  = pounds of fish

Let  $t$  = total cost

#### System

$$t = 5 + 2p$$

$$t = 3p$$

Solve for a single variable.

Substitute and Solve.

Plug back in to find the other variable.

Write the solution.

### Story Problem

Ben is 12 years older than Emily. The sum of their ages is 64. How old is Ben? How old is Emily?

#### Let Statements

Let  $b$  = Ben's age

Let  $e$  = Emily's age

#### System

Solve for a single variable.

Substitute and Solve.

Plug back in to find the other variable.

Write the solution.