# Problem Solving
## Skill 4 - 6F

**Equations with Variables**
**Directions:** Write an equation with a variable that shows this problem. Then solve the equation.

Mr. Cole bought a pizza for the swim club. The pizza has 12 slices. The pizza will be divided equally among the swimmers. Each swimmer will eat 3 slices. How many swimmers will eat pizza?

$$12 \div y = 3$$

↓       ↓       ↓

number of slices of pizza ÷ the number of swimmers = the number of slices each swimmer eats

$12 \div y = 3$
$12 \div 4 = 3$
$y = 4$

**1.** There are some slices of pizza. John takes 2 slices. Now there are 7 slices. How many slices were there before John took 2 slices?

**2.** Joey puts 21 marbles in an equal number of rows with 7 marbles in each row. How many rows will Joey make?

**3.** Lena had 15 bracelets. She got some more bracelets as a present from a friend. She now has a total of 21 bracelets. How many bracelets did Lena get from her friend?

# Problem Solving
## Skill 4 - 6F

**Equations with Variables**

Write an equation with a variable that shows this problem. Then solve the equation.

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16 slices of pizza divided equally among a number of students is 4 slices each.

$$16 \div y = 4$$

$\downarrow$      $\downarrow$      $\downarrow$

number of slices of pizza    divided equally among how many students?   =   the number of slices each student eats

$16 \div y = 4$
$16 \div 4 = 4$
$y = 4$

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**4.** 8 slices of pizza divided equally among a number of students is 2 slices each.

**5.** Jason added 5 matchbox cars to his collection. He now has 37 matchbox cars. How many cars did he have before he added 5 more?

**6.** Marsha had 24 marbles. She gave some away. Now she has 18 marbles. How many marbles did she give away?

# Answer Key
## Skill 4 - 6F

**1.** There are some slices of pizza. John takes 2 slices. Now there are 7 slices. How many slices were there before John took 2 slices?

$y - 2 = 7$          There were 9 pieces before John took 2 slices.
$9 - 2 = 7$
$y = 9$

**2.** Joey puts 21 marbles in an equal number of rows with 7 marbles in each row. How many rows will Joey make?

$21 \div y = 7$          He will make 3 rows.
$21 \div 3 = 7$
$y = 3$

**3.** Lena had 15 bracelets. She got some more bracelets as a present from a friend. She now has a total of 21 bracelets. How many bracelets did Lena get from her friend?
$15 + x = 21$          Lena got 6 bracelets as a present from a friend.
$15 + 6 = 21$
$x - 6$

**4.** 8 slices of pizza divided equally among a number of students is 2 slices each.
$8 \div y = 2$
$8 \div 4 = 2$
$y = 4$

**5.** Jason added 5 matchbox cars to his collection. He now has 37 matchbox cars. How many cars did he have before he added 5 more?

$y + 5 = 37$          Jason had 32 cars before he added 5 more.
$32 + 5 = 37$
$y = 32$

**6.** Marsha had 24 marbles. She gave some away. Now she has 18 marbles. How many marbles did she give away?

$24 - x = 18$          Marsha gave away 6 marbles.
$24 - 6 = 18$
$x = 6$