Multiplication and Division Facts

A class is making popcorn for a carnival. Each batch makes 30 cups. They put the popcorn in bags that hold 6 cups each. How many bags of popcorn does one batch make?

You can solve the problem using division or multiplication.

**Division**

How many groups of 6 are in 30?

<table>
<thead>
<tr>
<th>Total number of cups</th>
<th>Number of bags</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 cups</td>
<td>5</td>
</tr>
<tr>
<td>6 cups each bag</td>
<td></td>
</tr>
</tbody>
</table>

Divide the total number of cups by the number of cups in each bag:

\[ 30 \div 6 = 5 \]

Number of bags

Each batch of popcorn makes 5 bags.

**Multiplication**

What number times 6 equals 30?

<table>
<thead>
<tr>
<th>Number of bags</th>
<th>Cups in each bag</th>
<th>Total number of cups</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>6</td>
<td>30</td>
</tr>
</tbody>
</table>

Complete the equations.

1. \( 21 \div 3 = \) __________  
2. \( 36 \div 6 = \) __________  
3. \( 18 \div 9 = \) __________  
4. \( 54 \div 9 = \) __________  

\( 3 \times \) __________ = 21  
\( 6 \times \) __________ = 36  
\( 9 \times \) __________ = 18  
\( 9 \times \) __________ = 54

5. There are 24 students running in a relay race. Each relay team needs 4 students. How many teams will they make? Write a division sentence and a multiplication sentence.

6. **Writing to Explain** The same number makes both of these equations true. What number is it? Explain.

\( 56 \div 8 = \) __________  
\( 8 \times \) __________ = 56