

## Top – It Games

### Multiplication Top - It

Materials:

Number cards, 4 each of the numbers 1-10

Number of players: 2 or 3

Directions: A player shuffles the cards and places the deck number-side down on the playing surface. Each player turns over two cards, calls out their product and identifies fact strategy they used (see fact strategy cards). The player with the largest product wins the round and takes all the cards.

In case of a tie for the largest product, each tied player turns over two more cards and calls out his/her product. The player with the largest product takes all the cards of both plays.

Play ends when not enough cards are left for each player to have another turn. The player with the most cards wins. Or players may toss a penny to determine whether the player with the most or the fewest cards wins.

#### Advanced Variation:

Players turn over four cards and form two 2-digit numbers, which they then multiply. Players should consider how they form their numbers since different arrangements produce different products. For example: A player turns over 2, 5, 7 and 4.  $74 \times 52$  will result in a greater product than  $25 \times 47$ .

### Division Top – It

Materials: Number cards, 4 each of the numbers 1-10

Number of Players: 2 or 3

Directions: Use the cards or dice to generate division problems. Players pick three cards. They pick two numbers to form the dividend and the remaining number is on the divisor. The player with the largest quotient (dropping the remainder) wins a round. A player shuffles the cards and places the deck number-side down on the playing surface. Each player turns over two cards and calls out their quotient. The player with the largest quotient wins a round.

#### Advanced Variation:

Amore advanced version may be to choose four cards and form a 3-digit number to be divided by the remaining number. Players may eventually notice that changing the arrangement of the numbers may result in a higher quotient. For example,  $42/5$  is greater than  $25/4$ , but  $54/2$  is even greater.

## Basic Fact Multiplication Strategies

<p style="text-align: center;"><b>Double</b></p> <p>Any number times 2 is a double (that number plus itself.)</p>	<p style="text-align: center;"><b>Multiply by 3 (Counting Up)</b></p> <p>Multiply by 2, then add one more set.</p>
<p style="text-align: center;"><b>Double-Double</b></p> <p>Multiply by 4 (Example: <math>4 \times 6</math> is like <math>6 + 6 + 6 + 6</math>. You can double the 6's to get <math>12 + 12</math>, then double the 12's to get 24.)</p>	<p style="text-align: center;"><b>Skip count by 5</b></p> <p>Skip count the number of 5's you are multiplying</p>
<p style="text-align: center;"><b>Skip count by 10</b></p> <p>Skip count the number of 10s you are multiplying</p>	<p style="text-align: center;"><b>Double-Double-Double</b></p> <p>Multiplying by 8 (Example: Since <math>8 \times 6</math> is like <math>6 + 6 + 6 + 6 + 6 + 6 + 6 + 6</math> then you can double the 6's to get <math>12 + 12 + 12 + 12</math>, then double the 12's to get <math>24 + 24</math>, then double the 24's to get 48.)</p>
<p style="text-align: center;"><b>Multiply by 1</b></p> <p>Any number multiplied by 1 equals that number because it is just one group/set</p>	<p style="text-align: center;"><b>Multiply by 6 (Counting Up)</b></p> <p>Multiply by 5 and then add one more set (Example: <math>6 \times 7</math> is <math>5 \times 7</math> plus one more set of 7.)</p>
<p style="text-align: center;"><b>Multiply by 9 (Counting Back)</b></p> <p>Multiply by 10 and then take one set away (Example: <math>4 \times 9</math> is <math>4 \times 10</math> and take away a set of 4.)</p>	<p style="text-align: center;"><b>Left Over Fact</b></p> <p style="text-align: center;"><math>7 \times 7</math></p>