



Thinking Strategies for Multiplication Facts

Multiplication facts	Strategy descriptions	Examples
Zero (Property of Zero)	Think of these as no groups of something or a group of nothing; prove it on a number line	$0 \times 5 =$ Think: <i>I have zero groups of five, so I have 0 things!</i>
Ones (Identity Property)	When one factor is 1, the product is the same as the other factor.	$1 \times 8 =$ Think: <i>I only have 1 group so, it is just the number in the group, OR</i> $8 \times 1 =$ <i>There are 8 groups with 1 thing in each group.</i>
Tens	Count by tens OR Add a zero to the other factor	$3 \times 10 =$ 10, 20, 30 OR Write 3 and add a 0 to it
Fives	Count by fives (Clock face fives) OR Multiply by 10 and then half	$5 \times 6 =$ Think: <i>5, 10, 15, 20, 25, 30 (on a clock face, it is 30 minutes past the hour when the minute hand is on the 6)</i> OR <i>6×10 is 60 and half of 60 is 30</i>
Twos	Double the factor that is not a 2 (relate to doubles strategy in addition; two groups of 6)	$2 \times 6 =$ Think: <i>It's a double, so 6 and 6 is 12.</i>
Fours	Double and double again	$4 \times 7 =$ Think: <i>Double 7 is 14, so 14 and 14 is 28</i>
Eights	Double the factor that is not an 8 three times OR Half then double... (double 4s)	$8 \times 6 =$ Think: <i>6 and 6 is 12, 12 and 12 is 24, and 24 and 24 is 48</i> OR <i>Half of 8 is 4; $4 \times 6 = 24$, double 24 is 48</i>
Threes	Doubles plus another; think of 3 as 2 + 1; double the factor that is not a 3 and then add another set of the doubled factor	$3 \times 6 =$ Think: <i>Double 6 is 12 and one more group of 6 is 18.</i>
Sixes	Think distributive property.... think of 6 as 5 + 1 (multiply by 5 and add another) OR Half then double... (double 3s)	$6 \times 7 =$ Think: <i>5×7 is 35 and add another group of 7, the sum is 42</i> OR <i>Half of 6 is 3, 3×7 is 21, 21 and 21 are 42</i>
Nines	Multiply by 10 and subtract the number OR Think one less than the factor, put the new number in the tens place. Then determine the ones place by thinking of the number that when added to the number in the tens place is equivalent to 9	$9 \times 7 =$ Think: <i>$10 \times 7 = 70$, subtract a group of 7 to get 63</i> OR <i>One less than 7 is 6, so the new tens digit is 6 (with a value of 60) and I can place a 3 in the ones place because $6 + 3$ is 9, the answer is 63</i>
Sevens	Think distributive property.... think of 7 as 5 + 2 (multiply by five and add the double)	$7 \times 8 =$ Think: <i>5×8 is 40, 2×8 is 16 so 40 and 16 is 56</i>