



# 3rd Grade Math

## PARENT GUIDE - UNIT TWO & THREE

*IMPORTANT CONCEPTS YOUR STUDENT SHOULD KNOW AND ACTIVITIES TO DO AT HOME*

**Unit Title: Multiplication and Division strategies and Properties**

### Important Concepts Addressed in this Unit

**MGSE3.OA.1** Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each.

**MGSE3.OA.2** Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.

**MGSE3.OA.3** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

**MGSE 3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers.

**MGSE3.OA.5** Apply properties of operations as strategies to multiply and divide.

**MGSE3.OA.6** Understand division as an unknown-factor problem.

**MGSE3.NBT.3** Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g.,  $9 \times 80$ ,  $5 \times 60$ ) using strategies based on place value and properties of operations.

**MGSE3.OA.7** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

**MGSE.3.MD.3** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.



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| Key Words To Know  | How You Can Help Your Student  |
|--|--|
| Factor product divisor dividend quotient<br>equal groups rows columns repeated<br>addition multiply divide array unknown<br>pictograph line plot nearest inch decompose<br>commutative property associative property<br>distributive property inverse operations | <p><b>Interactive Learning Games:</b> Playing games is a wonderful way to practice facts at home in a fun environment.</p> <p><b>Web-based</b><br/><a href="http://www.multiplication.com">www.multiplication.com</a><br/><a href="http://www.reflexmath.com">www.reflexmath.com</a><br/><a href="http://www.mathfactcafe.com">www.mathfactcafe.com</a><br/><a href="http://www.factmonster.com">www.factmonster.com</a></p> <p><b>Hands-on</b><br/>Flash cards<br/>Dice- roll and multiply<br/>Playing cards- flip and multiply (WAR)</p> <p><b>Helping your student gain fact fluency will greatly improve their speed and accuracy for classroom assignments.</b></p> |

### Sample Problems

Mrs. Chaney baked a batch of cookies for the bake sale. She baked an equal number of chocolate, peanut butter, and sugar cookies. If she baked a total of 21 cookies, how many cookies were sugar cookies?



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$5 \times 40 = \underline{\hspace{2cm}}$

$7 \times 8 = \underline{\hspace{1cm}} \times 7$

$27 = \underline{\hspace{1cm}} \times 3$

$81 = 9 \times \underline{\hspace{1cm}}$

$2 \times (4 \times 6) = \underline{\hspace{1cm}}$

$2 \times 9 = N$

$36 \div 4 = S$

$3 \times 8 = \underline{\hspace{1cm}}$

$4 \times 8 = \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} = 6 \times 6$

$N = \underline{\hspace{1cm}}$

$S = \underline{\hspace{1cm}}$

Complete the related facts for the number sentence given.

$4 \times 8 = 32$

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$8 \div 2 = 4$

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