

## Grade 3 Mathematics Unit Preview

### Quarter 4: Number Relationships and Computation (Division)

Objectives: (Your student will be able to)

- **Multiply and divide whole numbers using a calculator.**
- **Multiply a two-digit or three-digit number with a one-digit number with renaming.** For example,  $34 \times 6 = 204$
- **Represent division as the process of sharing and grouping.**  
For example: Sharing: Mark has 24 apples. He wants to share them equally among his 4 friends. How many apples will each friend receive? The unknown is "How many are in each group?"  
Grouping: Mark has 24 apples. He put them into bags containing 6 apples each. How many bags did Mark use? The unknown is "How many groups or bags are there?"
- **Solve a problem involving the four basic operations.**
- **Recognize that a number divided by itself is equal to one, and a number divided by one is equal to that number.** For example:  $8 \div 8 = 1$  and  $8 \div 1 = 8$
- **Identify the divisor, dividend, quotient and remainder in division problems.** For example, in  $6 \div 3 = 2$ , 6 is the dividend, 3 is the divisor, and 2 is the quotient.
- **Divide one- or two-digit dividend by a one-digit divisor with remainder.** For example,  $88 \div 3 = 29$  remainder 1.
- **Complete a function table using a given addition or subtraction rule.**

Input	Output
0	3
1	4
2	5

The function table to the left lists pairs of numbers that follow the rule  $n + 3$ .

Input = 3
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- **Interpret the remainder for a given situation.** For example: Discard the remainder: The rope is 25 feet long. How many 7 foot jump ropes can he make? Force the remainder to the next whole number: The ferry can hold 8 cars. How many trips will it have to make to carry 25 cars across the river?

Vocabulary: (Words your student will need to understand)

• <b>algorithm</b> : a step-by-step method for computing	• <b>dividend</b> : a number that is divided by another number
• <b>divide</b> : to separate into equal groups and find the number in each group or number of groups	• <b>divisor</b> : a number that divides another number
• <b>function table</b> : a table that matches each input with an output value	• <b>mental mathematics</b> : the process of computing an exact answer in your head.
• <b>quotient</b> : the number, not including the remainder, that results from dividing	• <b>remainder</b> : the amount left over when a whole number cannot be divided into equal whole numbers
• <b>estimation</b> : a number close to an exact amount	• <b>grouping</b> : dividing things into equal groups (sets)



Activities to do with your student (in addition to homework, optional):

- Roll 2 number cubes to determine the factors. Make an array to find the product.
- Use a calculator to solve word problems using multiplication and division. *For example, Callie wants to buy 20 apples that cost \$ .19 each. What is the total cost of her purchase?*  
*Michael has 332 quarters. He wants to put them into groups of 4. How many groups will he make?*
- Act out division problems with counters. *For example, Brad has 12 rabbits. He puts the same number of rabbits into each of 4 cages. How many rabbits does Brad put in each cage?*
- Roll 2 number cubes and write the fact families. For example, for rolls of 4 and 6, write:  $4 \times 6 = 24$ ,  $6 \times 4 = 24$ ,  $24 \div 6 = 4$ ,  $24 \div 4 = 6$ .
- Ask your student to find the missing factor. For example,  $5 \times \text{what number?} = 75$ ?
- Practice addition and subtraction facts.
- Practice multiplication facts and division facts.

