

## Grade 5 Mathematics Unit Preview

### Quarter 1: Algebra, Patterns, and Functions

Objectives: (Your student will be able to)

- **Analyze patterns and generalize rules illustrated in patterns.** For example, (4, 7, 10, 13) follows the rule  $n + 3$ .
- **Complete a function table when given a rule.** See example to the right.

In	Out	
6	11	The rule is $n + 5$ .
7	12	
8	13	
9	?	
10	15	

- **Write simple algebraic expressions with one unknown and evaluate by substitution.**  
For example, solve the following expression  $n + 58$ , if  $n = 5$
- **Write and identify expressions to represent unknown quantities with one unknown and one operation**
- **Solve for the unknown in an equation.** For example, in the equation  $n + 40 = 52$ , what is the value of  $n$ ?
- **Identify, write, or solve inequalities.** For example, in  $n + 7 > 8 \times 6$ , what could the value of  $n$  be?

Vocabulary: (Words your student will need to understand)

• <b>Evaluate:</b> To find the numerical value.	• <b>Function Table:</b> A table of ordered pairs that applies a rule to the input to find an output.
• <b>Expression:</b> A mathematical combination of numbers, variables, and operations.	• <b>Equation:</b> A number sentence with an equal sign. $5 \times 4 = 20$ .
• <b>Unknown:</b> A variable in an expression or equation	• <b>Patterns:</b> A sequence of shapes or numbers that follow a logical rule

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

- Create rules (ex.  $n + 3$ ) and have your student extend the number pattern (3, 6, \_\_\_\_, \_\_\_\_).
- Create a number pattern and have your student write the rule.
- Create a function table for a given rule and have the student fill in the missing Inputs and Outputs.
- Create a function table for an unknown rule and have the student fill in the missing Inputs and Outputs and write the rule.
- Have your student solve for the unknown (the variable) in different equations. For example:  
 $n - 7 = 10$ . Solve for  $n$
- Practice multiplication and division basic facts.

