

End-of-Unit Assessment Study Guide-Patterns, Functions and Algebra

Test on Friday, January 31

*Resources: Study Guide and Student Journal
IXL Objectives H.1, H.2, L.1-L.5, L.8 and L.9*

- Student should be able to describe geometric and numerical patterns using tables, symbols or words.
 - What is the rule for the pattern? 8, 14, 26, 50, 98
 - $x2$ then -2
 - What is the rule? Fill in the missing numbers.

In	82	90		74
Out	58	66	23	

- Example:
 - The sequence of shapes forms a repeating pattern:



- Which of the following sequences shows the same pattern?
 - a. aabcaabcaab
 - b. lmnlnlm
 - c. 12121212

- Students should be able to create geometric and numerical patterns, using concrete materials, number lines, tables, and words.
- Students should be able to extend geometric and numerical patterns, using concrete materials, number lines, tables, and words.
 - Example: What would be the next three numbers in the sequence 2, 4, 8, 16, 32...
 - Answer: The rule for the pattern is $x2$, so the next three numbers would be 64, 128, 256
- Students should be able to recognize and demonstrate that the equals sign (=) relates equivalent quantities in an equation.
- Students should be able to write an equation to represent equivalent mathematical relationships
 - Example: $4 \times 3 = 2 \times 6$
- Students should be able to recognize and demonstrate appropriate use of the equal sign in an equation.
 - Example: $37 \times 10 = 370$ and $42 + 7 = 7 \times 7$
- Students should know and understand the associative property of addition. The addends in an addition problem can be grouped in any way, and the answer will still be the same.
 - Example: $(2 + 4) + 6 = 2 + (4 + 6)$ or $6 + (9 + 8) = 15 + 8$
- Students need to understand and recognize the Associative Property of Multiplication. The grouping of numbers in a multiplication problem does not affect the product
 - Example: $(4 \times 3) \times 2 = 4 \times (3 \times 2)$ or $9 \times (8 \times 2) = (9 \times 8) \times 2$