End-of-Unit Assessment Study Guide-Multiplication and Division
Test date to be determined

IXL Objectives D.1, D.2, D.11, D.22, D.25-D.27, D.29-D.35, D.39, E.1-E.5, E.6, E.7, E.9-E.11, E.13, N.4-N.6, and N.8

- Students should know the definitions for product and quotient.

- Students should be able to solve division problems written in various forms

- Students should know or be able to find the products for multiplication combinations through 12 x 12.

- Students should be able to create and solve a story problem about a division problem.
    - Example:
        - If Katrina has 468 marbles and wants to store equal amounts in 4 containers, how many marbles will be in each container?
        - *Answer: 117 marbles in each container*

- Students should be able to solve multi-step word problems using addition, subtraction, multiplication and division.
    - Examples:
        - Mrs. Anderson has 23 red pencils, 47 blue pencils, and 16 orange pencils. She wants to divide them up between three students evenly. How many pencils will each student have?
        - Mrs. Huret needs 82 markers for her class. They come in packages of 8. How many packages will she need?
        - Dr. Idio has 32 pounds of candy for the school end-of-year party. He needs 16 times as much candy. How many pounds of candy does he need?
        - Ms. McCulla spent $58.00 on pizza and juice for a class party. If she spent $13.00 on juice and the rest on five pizzas, how much did each pizza cost?

- Students should be able to estimate products and quotients.
    - Examples:
        - What is the best estimate for 52 ÷ 5?

        - Estimate the cost of 2 books, each costing $12, and 4 movies, each costing $21.

- Students should be able to solve two or three digit by two digit multiplication problems.

- Students should be able solve two or three digit by one digit division problems, with and without remainders. Students can use any effective strategy to find the answer to a division problem.
    - *Example: 735 ÷ 9 =*

- Students should be familiar with the Associative Property for Multiplication.
    - The grouping of numbers in a multiplication problem does not change the product
        - Example: (18 x 3) x 16 = 18 x (3 x 16)

    - They will need to solve a multiplication problem with three factors using the associative property.
        - Example:
            - Solve 20 x 5 x 34 using the associative property
            - Group 20 and 5 because it is a simpler multiplication problem. (20 x 5) x 34
            - 20 x 5 = 100 and 100 x 34=3,400
            - 20 x 5 x 34 = 3,400

- Students should be able to identify conversions within the US Customary system
    - Example: How many cups are in a gallon?
    - Example: How many ounces are in 4 pounds?