****

**Eureka Math Tips for Parents**

Grade 5 • Module 1

|  |  |
| --- | --- |
| **Place Value and Decimal Fractions**In this first module of Grade 5, we will extend 4th grade place value work to multi-digit numbers with decimals to the thousandths place. Students will learn the pattern that one tenth times any digit on the place value chart moves it one place value to the right. They will also perform decimal operations to the hundredths place. | **Grade Level Standards**5.MD.1, 5.NBT.1,5.NBT.2, 5.NBT.3,5.NBT.4, 5.NBT.7**Student Report Card**Understands place value for decimal numbers.Uses place value to add, subtract, multiply and divide decimal numbers. |

**Key Vocabulary**

* **Decompose:** the process of separating numbers into smaller parts
* **Thousandths:** related to place value (we have already studied tenths and hundredths)
* **Exponents:** how many times a number is to be used in a multiplication sentence
* **Millimeter:** a metric unit of length equal to one thousandth of a meter
* **Equation:** statement that two mathematical expressions have the same value, indicated by use of the symbol =; e.g., 12 = 4 x 2 + 4
* **Place value:** the numerical value that a digit has based on its position in a number
* **Standard form:** a number written in the format: 2.35
* **Expanded form**: e.g., 2 + 0.3 + 0.05 = 2.35
* **Unit form:** e.g., 2.35 = 2 ones 3 tenths 5 hundredths
* **Word form:** e.g., two and thirty-five hundredths

**How you can help at home:**

* Practice basic addition, subtraction, multiplication and division facts.
* Roll or pick numbers to create decimals. Add, subtract, multiply, or divide the decimals.
* Find the batting averages or other statistics in the sports section of a newspaper and add or subtract the statistics.
* Estimate and find the sums and differences of items at the store and in restaurants.
* Roll or pick numbers to create decimals. Compare and order the numbers.
* Choose a four-digit number. Multiply and divide by powers of 10 (10, 100, 1,000, etc.) by moving the decimal point left or right as appropriate.

**Models and Representations**

|  |  |  |  |
| --- | --- | --- | --- |
|

|  |
| --- |
| **Multiply and Divide by Powers of 10**Students will use place value understanding to multiply and divide by powers of 10. For example, when we multiply a decimal by a power of 10, the product will be larger than the original number; therefore we are shifting to the left on the place value chart. The number of times we shift to the left depends on the power of 10. If multiplying by 10, we shift one place to the left. If multiplying by 100, we shift two places to the left and if multiplying by 1,000, we shift three places to the left and so on. |
| **Rounding 1.57 to the nearest tenth** **Step 1:** Decompose 1.57 to show as many ones, tenths, and hundredths.**Step 2:** Draw a vertical number line. Since we are going to round to the nearest tenth, we need to decide between which two tenths does 1.57 lie and indicate that on the vertical number line.**Step 3:** Determine the halfway point or midpoint between 15 tenths and 16 tenths.**Step 4:** Locate 1.57 on the number line. We can see that 1.57 is past the midpoint so 1.57 rounds to 16 tenths or 1.6. |
| **Operations with Decimals**When performing operations with decimals students can use place value charts to assist them. Students move away from special strategies, and develop fluency with the standard algorithms.  |

 |