4.2 Order and Rounding

**Learning Objectives:**
1. Compare decimals. (Use <, >, or =; write decimals in order).
2. Round a decimal number to a given place value. Include monetary values.

1. **Comparing Decimals**

   To compare decimal—lines up the decimal point, then compare corresponding digits, starting at the left until the two of the digits are difference. If necessary, added zeros.

   **Example 1.** Insert <, >, or = to form a true statement.

   1. 0.2 _____ 0.5
   2. 0.14 _____ 0.14000
   3. 0.9 _________ 0.999

   **Example 2.** Write the decimals in order from smallest to largest.

   26.601, 26.631, 27.040, 26.630

2. **Rounding Decimals**

   **Steps for Rounding Decimals to a Place Value to the Right of the Decimal Point**
   1. Underline the digit that needs to be rounded. (the given place value)
   2. Locate the digit to the right, then
      a. If this digit is 5 or greater, add 1 to the digit in the given place value and delete all digits to its right.
      b. If this is less than 5, delete all digits to the right of the given place value.

   **Example 3.** Round each decimal to the given place value.

   1. 0.39 to the nearest tenth
   2. 0.585 to the nearest hundredth

   **Example 4.** Round each monetary amount to the nearest cent or dollar as indicated.

   1. $0.058 to the nearest cent
   2. $17.88 to the nearest dollar