Grade 7 Review

Decimal Place Values and Rounding

Decimal Numbers

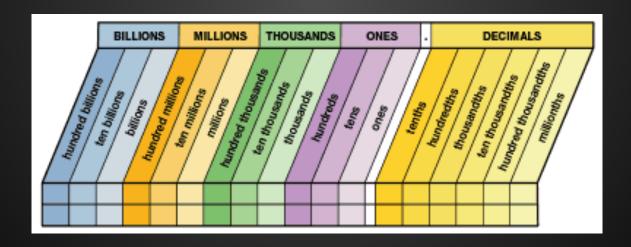
A decimal number is a number comprised (made up of) of a whole number part and a decimal part separated by a decimal point.

Example: 584 . 2037

Whole Number Decimal Part

Decimal Numbers

The table below gives the name of the place value of each digit.



Decimal Numbers

In a decimal number, the place value of a digit depends upon its place in the number.

Ex: In the number 745.9208, the 2 occupies the hundreths place.

How do we read this number?

Seven hundred forty five and nine thousand two hundred eight ten thousandths

Rounding a decimal number is no different than rounding a whole number.

Pre-step: Underline the digit that you want to round

Step 1 - Look at the digit on the right of the digit that we want to round.

Step 2 - If the digit is greater than or equal to 5, increase the digit that we want to round by 1 (5 goes to 6, 7 goes to 8 etc)

Step 3 - If the digit is less than 5, we do not change the digit that we want to round (it stays the same)

Step 4 - The digits that originally appeared after the digit we want to round, are no longer written (we replace the digits by 0)

Example:

Round 4.7852 to the nearest

- a. Tenth
- b. Hundreth
- c. Thousandth

a. 4.7852 to the nearest tenth

Pre- step: We want to round the 7

4. <u>7</u>852

Step 1: Look at the number to the right of 7

4. <u>7</u>852

Step 2: Is it greater than, equal to or less than 5? Greater than, therefore 7 becomes 8.

We re-write our decimal number as: 4.8

b. 4.7852 to the nearest hundreth

Pre- step: We want to round the 8

4. 7<u>8</u>52

Step 1: Look at the number to the right of 8

4. 7852

Step 2: Is it greater than, equal to or less than 5? Equal to, therefore 8 becomes 9.

We re-write our decimal number as: 4.79

c. 4.7852 to the nearest thousandth

Pre- step: We want to round the 5

4. 78<u>5</u>2

Step 1: Look at the number to the right of 5

4. 7852

Step 2: Is it greater than, equal to or less than 5? Less than, therefore 5 stays a 5.

We re-write our decimal number as: 4.785

Homework

Grade 7 Review Worksheet for next class