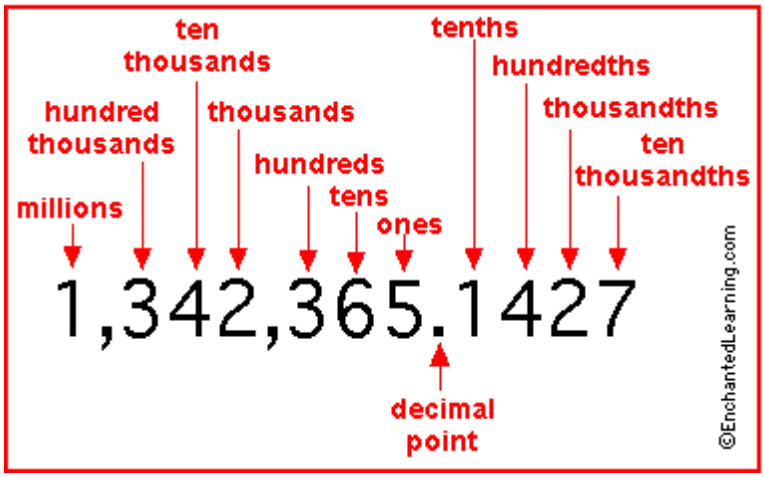
Decimals

Date: _____ Name: _____

Until now, we have focused on whole numbers. Today we look at decimals. A decimal is one way of indicating part of a whole. What is another way to do this?



When **comparing decimals**, just like when comparing whole numbers, we compare the numbers with the same place value working from left to right.

42.03 42.0305

Compare using $<$ $>$ *or* $=$

15.29 < 15.31 152.05 < 152.1 48.37 > 48.295

When **rounding decimals**, just like when rounding whole numbers. Remember, round ___ if the number following is 5-9, leave it alone if the number following is 0-4. NEVER ROUND DOWN.

Circle the numbers below that will stay the same when rounding to the nearest tenth.

48.297 5.019 524.228 14.003 25.912 100.749

What happens to the numbers you did not circle?

48.297 → 48.3

5780

5800

There are many reasons why we would round numbers. One of them is because sometimes we are dealing with numbers with many numbers after the decimal or even numbers keep going forever after the decimal. (These are called irrational numbers.) Rounding simplifies things.

Another reason why we would round is to estimate. Estimation is a very important skill, especially when dealing with decimals, because we often use a calculator for these calculations and it is very easy to make input errors!

We use rounding when we are paying with cash when buying something as well.

For a little more practice with rounding, complete the following table:

Number	Round to	Rounded Number
4.295	nearest tenth	4.3
4.295	nearest hundredth	4.30
365.98	nearest hundredth	365.98
58.24	whole number doesn't have decimals	58
462.049	1 decimal place	462.0
0.627	2 decimal places	0.63
1007.7001	nearest hundredth	1007.70
Now you create an example that DOES NOT require the rounded number to change.		
	nearest tenth/hundredth	
Now you create an example that DOES require the rounded number to change.		
	nearest tenth/hundredth	

When asked to evaluate questions with decimals, use your Calculator :)

Evaluate:

1. $15.29 \times 3.71 =$ 56.7259
2. $48.23 + 157.479 =$ 205.709
3. $129.38 - 47.21 =$ 82.17

48.23
5