Math Makes Sense 7

Chapter: 3: Fractions, Decimals and Percents

Keep that GRID PAPER handy – you're gonna need it!

NB: When working through the assigned exercises and activities, you should check ALL your answers using the answer guide at the back of the book. Do **NOT** proceed to the next set of questions until you have corrected the section you are working on. I.e.: Do not wait to correct your answers till you have finished the whole page of assigned questions. When you are stuck or not getting something go back and **re-read** the notes and examples till you understand the concept.

THE BIG PICTURE: Understand that fractions, decimals and percents are all just variations of the same thing – like synonyms really. So, imagine you have a test worth 100 points. If you got ¾ of the questions right, that means that you got 75/100 correct. If you take a calculator and go 75 ÷100 (or 3÷4) you will get that represented as 0.75. Now if you recall **place value**, you know that the 0.75 occupies two places to the right of the decimal – the 1/10ths and the 1/100ths places, so the 75 part is really just representing 75 out of 100, or 75/100. Now think of what a percent sign looks like - %. It doesn't take much imagination to see that the % symbol is just a creative representation of the number 100...yes? So when you say that you got 75% on a test, you mean that you got 75 "out of %" (Oops, did I write that incorrectly?... I meant to write it as "out of 100!"

You NEED to KNOW:

1. that the **fraction line means DIVIDE** – 2/3 means 2÷3.

2. **PLACE VALUE** is a key strategy for you to understand in this chapter – especially the 3 places to the right of the decimal – **tenths**, **hundredths** and **thousandths.**

3. What EQUIVALENT FRACTIONS are, and how to make them – like ½ is equivalent to 5/10, or 50/100, or 500/1000.

Start by taking the **Practice Test** on Pg. 81. When done, calculate your %.

Topic: 3.1 Fractions to Decimals

Key Words: page 87. Define, illustrate and/or give an example of …

Terminating Decimal:

Repeating Decimal:

Read and study pages: 86 to 90.

Give special attention to: which fractions convert easily to **tenths**, **hundredths** and **thousandths –** so you do **NOT** need to use your calculator for these.

For example:

Which fractions require the use of a calculator to change them to decimals.

For example:

Practice Q's, page 88-90: 1 to 10 by yourself. Now, find a partner and share Q's 11 and 12.   Each choose to do one and then explain your results to your partner.

At home, log onto my virtual classroom and check out the link to Fibonacci!

Topic: 3.2 Comparing and Ordering Fractions and Decimals

Read and study pages: 91 to 94

Give special attention to: The NUMBER LINE

Where are the WHOLE numbers on a number line?

Where the FRACTIONAL numbers are located **compared to** the WHOLE numbers?

Understand that it is easiest to put things in order if they all look the same.

What is a **BENCHMARK**?

Practice Qs: pg 94-95. Do Q's -1 to 10 by yourself. Now, find a partner and co-operate to do Q 11.

Topic: 3.3 Adding and Subtracting Decimals

Read and study pages: 96 to 98.

Give special attention to: Estimating with decimals. Note that you pretty much ignore the decimal portions and just use the whole number portions.

You MUST line up your vertical columns by place value.

If a number has no decimal written, where is it hiding???

Practice: Qs pg 98-99: Do 1,2,3,7,9,and 11. Now with a partner, co-operate to do #'s 4 and 6. Explain your work to your partner.

Topic: 3.4 Multiplying Decimals

Read and study pages: 100 - 101

Give special attention to: working with Base Ten Blocks. Use a calculator to verify your work.

Practice Q's pg 102:, Q's 1 to 6. Share Q's 7 to 12 with a partner. Do # 13 together.

Topic: 3.5 Dividing Decimals

Read and study pages: 104 - 105

Give special attention to: working with Base Ten Blocks. Use a calculator to verify your work.

Draw a diagram here and label the **quotient** and the **divisor**.

Practice Q's pg 106-107:, Q's 1 to 6. Share Q's 7 to 12 with a partner.

Topic: 3.6 Order of Operations With Decimals

Read and study pages: 108

Give special attention to: BEDMAS, or PEMDAS (Please Excuse My Dear Aunt Sally) Check YouTube for some PEMDAS chants and Raps.

Calculator Check: Perform the Calculator test at the top of page 109.

Practice Q's pg 109:, Q's 1 to 6. Share Q's 7 to 12 with a partner. Do # 13

Mid Unit Review, pg 110 (Preparing for your Mid Unit Quiz)

Topic: 3.7 Relating Fractions, Decimals and Percents

Read and study pages 111 to 112.

Do Practice Q's 1-4. Partner-up for #5.

Topic: 3.8 Solving Percent Problems

Read and study pages 114 – 115

Note that if you buy a coat that is 25% off, the quickest way to calculate how much it will cost is to realize that what you will be paying is the other portion, which is 75%. So... imagine the coat is originally priced at $300.00

Method 1: 25% off means 25% of 300 = 75   Now 300 – 75 = 225

Method 2: 75% of 300 = 225

Do Practice Q's 1-8

Unit Review, pg 120-122. First, go over the "What Do I Need to Know" section. Now do all the questions in the Review.

Practice Test: Finish by taking the Practice Test on Pg. 123. When done, calculate your %.

Now you are ready for your Chapter Test.