MODULE 1--PLACE VALUE CONCEPTS FOR MULTIPLICATION AND DIVISION WITH WHOLE NUMBERS

Your Module Assessment will be at the beginning of next week. Below, you will find concepts that you will be expected to know for this assessment. Look over your exit tickets and problem sets. Look at the notes in your Apply Book. Please see me if you have any questions.

Topic A--Place Value Understanding for Whole Numbers
- Powers of 10 written in standard form, as multiplication expressions, and in exponential form

Standard Form	Multiplication Expression	Exponential Form
10,000	$10 \times 10 \times 10 \times 10$	10^4

- Multiplying and dividing by powers of 10

$$52,300 \div 10^2 = \underline{\hphantom{xxx}}$$

Digits will shift <u>two</u> places to the <u>right</u>

$10^2 = 10 \times 10 = 100$

$$52,300 \times 10^2 = \underline{\hphantom{xxx}}$$

Digits will shift <u>two</u> places to the <u>left</u>

$10^2 = 10 \times 10 = 100$

- Metric conversions

$532 \text{ L} = \underline{\hphantom{xxx}} \text{ mL}$ (Think: 1 L = 1,000 mL)

$53 \text{ cg} = \underline{\hphantom{xxx}} \text{ mg}$ (Think: 1 cg = 10 mg)

$5,320 \text{ Km} = \underline{\hphantom{xxx}} \text{ m}$ (Think: 1 Km = 1,000 m)

Topic B--Multiplication of Whole Numbers
- Multiply whole numbers

$$527 \times 39 = \underline{\hphantom{xxx}}$$

$\longrightarrow$

Topic C--Division of Whole Numbers

- Divide 4-digit dividends by 2-digit divisors (will have to use an area model for one problem)

Example

$9,600 \div 37$

$\approx 7,400 \div 37 = 200$

or

$\approx 8,000 \div 40 = 200$

You Try

$7179 \div 85$

$$
\begin{array}{r}
9 \\
59 \\
200 \\
\hline
37)\,9600 \\
-7400 \\
\hline
2200 \\
-1850 \\
\hline
35010 \\
-333 \\
\hline
17
\end{array}
$$

	200	50	9	
37	7400	1850	333	R 17

$7400 + 1850 + 333 + 17 = 9600$

$9600 = 37 \times 259 + 17$

- Write a word problem for a division expression, solve it, and explain what the quotient & remainder mean. **Remember, keep it simple! Think of splitting food or people into groups**

Topic D--Multi-Step Problems with Whole Numbers (this week) **Do your HW to get practice and pay attention!**

- Insert parentheses to make an equation true
- Solve a multi-step problem
- Compare expressions without evaluating