STUDY GUIDE: Place Value Patterns, Decimal Fractions, & Metric Conversions
Module 1: Mid-Module Review

5.NBT.1, 5.NBT.2, 5.NBT.3, 5.NBT.4, 5.MD.1

Name: _____ #____

Date: _____

1. Compare using >, <, or =.

a. 0.6 ◯ 0.596

b. 3 thousandths + 2 hundredths ◯ 0.023

c. 6 tens 2 tenths 1 hundredths ◯ 6.21

d. 63 hundredths ◯ 6.3

e. $2 \times 10^2 + 2 \times 1000 + 5 \times \frac{1}{10}$ ◯ $2 \times 100 + 2 \times 10^3 + 5 \times \frac{1}{10}$

f. $4 \times \frac{1}{10} + 4 \times \frac{1}{100}$ ◯ 0.404

2.

a. Model the number 5.55 on the place value chart.

b. Use words, numbers, and your model to explain why each of the digits has a different value. Be sure to use the phrases “ten times as large” and/or “one tenth as large” in your explanation.

c. Multiply 5.55×10^3. Explain the change in the value of each digit and the shift of the digits.

d. Divide the product from (c) by 10^4. Explain the change in the value of each digit and the shift of the digits.

3. A set of measurements is rounded to the nearest tenth and the highest rounded value is 5.4 cm.
   a. Which of the following values could be the original value?

   5.362 cm 5.247 cm 5.382 cm 5.415 cm

   b. Convert the rounded measure to meters. Write an equation to show your work.

4. Write each of the following metric units in the corresponding place value on the chart below. Remember to label each place value on the chart.

g, kg, mg, km, m, cm, mm, L, mL

					•			

5. Complete each of the following statements with the correct values:

Each liter is equal to _____ milliliter(s).

Each centimeter is equal to _____ meter(s).

Each kilometer is equal to _____ meter(s).

Each gram is equal to _____ kilogram(s).

6. Melanie has a bag of concrete mix that contains 475 grams of mix. She receives another 775 grams of mix from her friend. How many total kilograms of mix does Melanie have altogether?

7. 78 tenths + 4 thousandths + 3 hundredths in standard decimal form: _____

8. 78 tens + 4 thousands + 3 hundreds in standard decimal form: _____

9. Expanded form of 52.703: _____

10. Expanded form of one hundred five hundredths using fractions.

_____

11. Expanded form of 30.208 using decimals.

_____

12. Write in order form least to greatest: 1.97 1.947 2.5 2.268

_____

13. Write in order from greatest to least: 4.45 4.308 3.914 3.409

_____

14. Compare the values of each digit using phrases like "ten times" and "one-tenth"

55,5 00

a. **5** _____ 5

b. 5 _____ **5**

c. 5 _____ 5

d. 5 _____ **5**

e. 5 _____ 5

f. **5** _____ 5

15. **Complete the patterns.**

a. 0.02 0.2 _____ 20 _____ _____

b. 3,400,000 34,000 _____ 3.4 _____

c. _____ 8,570 _____ 85.7 8.57 _____

d. 444 4440 44,400 _____ _____ _____

e. _____ 9.5 950 95,000 _____ _____

16. True or False:

_____ $10^2 \times 5.2 = 5{,}200$

_____ $5{,}290 \div 10^2 = 52.9$

_____ $10^3 = 1{,}000$

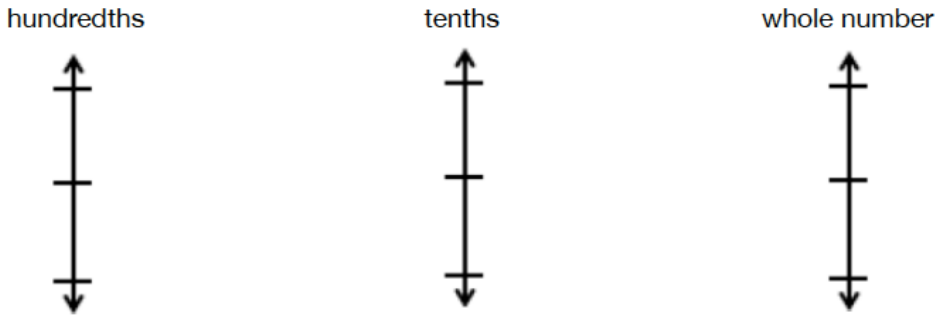
_____ $10^4 = 400$

_____ $3{,}520 \div 10^3 = 0.352$

_____ 23 thousandths times 10 to the 5th power = 2,300

17. Round to the given place values.

3.392



18. Complete each of the following with correct values:

2.87 meters is equal to _____ centimeters.

70 centimeters is equal to _____ meters.

6.3 meters is equal to _____ centimeters.

4 centimeters is equal to _____ meters.