Name:_____ #:_____ Test Date:_____

Parent Signature:_____
(signed and completed study guide +5 points on assessment)

Fifth Grade: Decimal Place Value Study Guide

In this unit, you learned to:
Read and write decimals in standard and word form.
Expand decimals, for example: 80.63 = (8 x 10) + (6 x 0.1) + (3 x 0.01) or (8 x 10) + (6 x $\frac{1}{10}$) + (3 x $\frac{1}{100}$)
Understand powers of 10 (multiply and divide by powers of 10 and exponents)
Round decimals, for example: 6.274 rounded to the nearest tenth is 6.3
Compare decimals, for example: 3.47 > 3.096
Add and subtract decimals, for example: 20.08 + 5.15 = 25.23

Directions: Use the above skills to answer/solve the problems below.

In Class Practice:	At Home Practice:
Read and Write Decimals	**Read and Write Decimals**
Write the **standard form** for each of the following decimals:	Write the **standard form** for each of the following decimals:
a. one and twenty eight hundredths = _____	a. two and eight tenths = _____
b. twenty four and six tenths = _____	b. eleven and forty five thousandths = _____
c. one hundred forty six thousandths = _____	c. six seven hundredths = _____
Write the following decimals in **word form**:	Write the following decimals in **word form**:
a. 45.7 = _____ _____	a. 0.067 = _____ _____
b. 3.07 = _____ _____	b. 56.8 = _____ _____
c. 0.234 = _____ _____	c. 0.905 = _____ _____

Expand Decimals

Write the following in **standard form**:

   a. (5 x 1,000) + (2 x 100) + (8 x 10)

      _____

   b. (9 x $\frac{1}{10}$) + (4 x $\frac{1}{100}$) + (6 x $\frac{1}{1,000}$)

      _____

Write the **expanded exponential form** using powers of ten for the following:

   a. 3,456

_____

   b. 672

_____

   c. 112

_____

Expand Decimals

Write the **expanded exponential form** using powers of ten for the following:

   a. 56

_____

   b. 7,909

_____

   c. 3,061

_____

Write the following in **expanded form** with <u>decimals</u>:

   a. 0.78 = _____

   b. 2.41 = _____

   c. 0.639 = _____

Powers of 10 and Exponents

How does the value of the 4 in 4,078 compare to the value of the 4 in 6,143? Explain your reasoning.

_____

_____

_____

Which of the following answer choices is the correct expression for 4 x 700 ?

   a. 28 x 10^1
   b. (4 x 7) x 10^3

Powers of 10 and Exponents

What is the value of the number 2 in each digit?

   a. 3,323 = _____
   b. 3,233 = _____
   c. 3,332 = _____
   d. 2,333 = _____

Write the power of ten for each of the following:

   a. 10 = _____
   b. 100 = _____
   c. 1,000 = _____
   d. 10,000 = _____

c. 28×10^3

d. $(4 \times 7) \times 10^2$

Solve.

a. $5.7 \div 100 =$ _____

b. $6.23 \times 10 =$ _____

c. $23.8 \times 1,000 =$ _____

What is the correct expression for 2 x 60?

_____

Solve.

a. $45.7 \times 10^3 =$ _____

b. $6.3 \div 10^2 =$ _____

Rounding Decimals

Which of the following is 8.45 rounded to the nearest <u>tenth</u>?

a. 8.4
b. 8.501
c. 8.5
d. 8.45

Round the following decimals to the nearest **whole number.**

a. 45.72 = _____

b. 107.07 = _____

c. 34.65 = _____

d. 22.19 = _____

Rounding Decimals

Which of the following is 9.780 rounded to the nearest <u>hundredth</u>?

a. 9.781
b. 10
c. 9.78
d. 9.9

Which of the following is 80.438 rounded to the nearest <u>hundredth</u>?

a. 80.44
b. 80.4
c. 80.43
d. 80.45

Compare Decimals

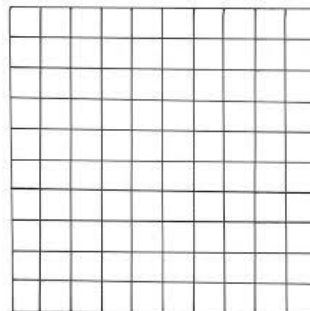Which of the following decimals is greater than 0.66 but less than 0.77?

a. 0.667
b. 0.63
c. 0.774
d. 0.79

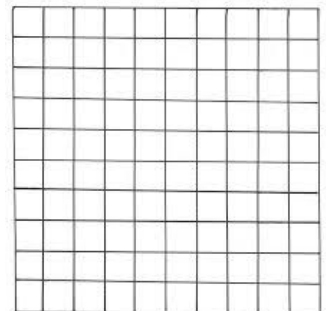Circle the following answer choices that are <u>true:</u>

a. 4.5 > 7.90
b. 0.89 < 1.01
c. 5.7 = 5.70

Compare Decimals

Shade the grids to represent each decimal, then use an **inequality sign** to show their relationship.

0.43 _____ 0.04
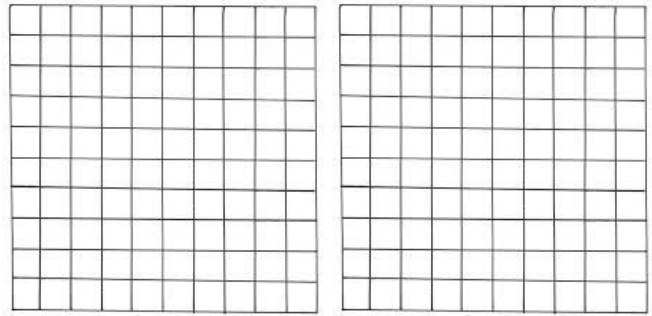
d. 6.2 < 2.23

Write an **inequality sign** for each blank:

   a. 6.77 _____ 6.78

   b. 5.06 _____ 5.6

   c. 0.89 _____0.891

     0.80 _____ 0.8

Adding and Subtracting Decimals

Estimate.

   a. 34.6 + 45.7 = _____

   b. 50.2 - 11.6 = _____

Solve.

   a. 0.67 + 12.3 = _____

   b. 34.89 + 3.1 = _____

   c. 3.4 - 7.8 = _____

Adding and Subtracting Decimals

Solve.

   a. 7.8 + 3.65 = _____

   b. 3.19 - 7.07 = _____

   c. 5.02 + 3.48 = _____

   d. 23.9 - 1.690 = _____

Three friends get together one day to lift weights. The amount of weight each friend lifted is listed below. What is the total amount of weight lifted between the three friends?

Eric   30.78 lbs
Samuel   45.11 lbs
Derek   27.990 lbs

Total: _____ lbs

d. 8 - 0.78 = _____	