

Name Key

Due Date _____

End Module 1 Study Guide

1. Tanya needs to write the number twenty-one and twelve thousandths as a decimal on her science lab report. How should she write this in standard form?

A 12.012

B 21.121

C 21.12

D 21.012

2. Kyle has three pieces of rope. The lengths of the ropes are 241.6 centimeters, 241.38 centimeters, and 264.7 centimeters. What is the difference in length between the longest and shortest pieces of rope?

Show your work.

241.60
241.38 (smallest)
264.70 (largest)

$$\begin{array}{r} 264.70 \\ - 241.38 \\ \hline 23.32 \text{ cm} \end{array}$$

3. A fabric store sells close-out fabrics for \$1.75 a yard. A customer buys 6 yards of fabric. How much does the customer pay for the fabric?

Show your work.

$$\begin{array}{r} 4 \overline{) 1.75} \\ \times 6 \\ \hline \$10.50 \end{array}$$

or

$$\begin{array}{r} 175 \text{ hundredths} \\ \times 6 \\ \hline 1050 \text{ hundredths} \\ \$10.50 \end{array}$$

4. Terrence says there are 3 correct ways to express the equivalent of 3.087 listed below. Check Yes or No for each one to say whether you agree.

a. three and eighty-seven hundredths 3.87 Yes No

b. $0.08 + 3 + 0.007$ 3.087 Yes No

c. $3 + 0.87$ 3.87 Yes No

d. $3 \times 1 + 8 \times \frac{1}{100} + 7 \times \frac{1}{1000}$ 3.087 Yes No

e. $3 + \frac{8}{100} + \frac{7}{1000}$ 3.087 Yes No

5. Which decimal represents $4 \times 1,000 + 9 \times 100 + 2 \times \frac{1}{10} + 5 \times \frac{1}{1,000}$?

A 4,900.250

C 4,090.025

B 4,900.205

D 4,009.025

4900.205

6. Five newborn babies at a hospital weighed the following weights in pounds. Which weight(s) round to 8 pounds when rounding to the nearest pound?

Circle all the correct answers.

ones place

A 8.075 ≈ 8.000

B 7.099 ≈ 7.000

C 7.561 ≈ 8.000

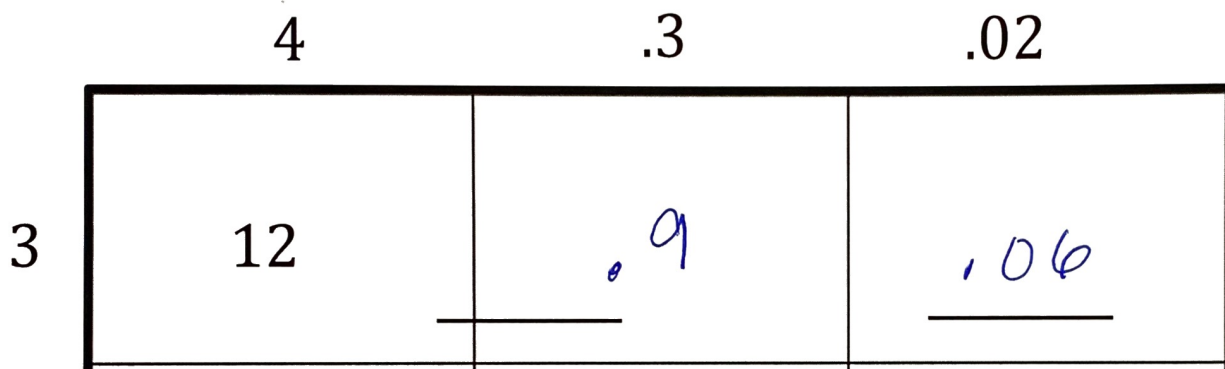
D 8.501 ≈ 9.000

E 7.800 ≈ 8.000

7. Mr. Wardlow has 3 packages of potato chips. Each full package weighs 4.32 ounces. Mr. Wardlow wants to know how many ounces of chips he has.

Part A

Mr. Wardlow draws this area model to find the partial products. Complete the model by filling in the blanks.



$$12 + .9 + .06$$

$$12.96$$

Part B

How many ounces of chips does Mr. Wardlow have in all?

Show your work.

Answer: 12.96 ounces of chips

8. Compare using >, <, or =.

a. 2 tenths + 11 hundredths $\textcircled{>}$ 0.13

$$\begin{array}{r} .2 + .11 \\ \quad \diagdown \quad \diagup \\ .31 \end{array}$$

b. 13 tenths + 8 tenths + 32 hundredths $\textcircled{=}$ 2.42

$$1.3 + .8 + .32$$

$$\begin{array}{r} 1.30 \\ + .80 \\ \hline 2.42 \end{array}$$

c. 342 hundredths + 7 tenths $\textcircled{>}$ 3 + 49 hundredths

$$3.42 + .7$$

$$3.49$$

$$4.12$$

d. $2 + 31 \times \frac{1}{10} + 14 \times \frac{1}{100}$ $\textcircled{>}$ 2.324

$$2 + 3.1 + .14$$

$$5.24$$

e. $14 + 72 \times \frac{1}{10} + 4 \times \frac{1}{1000}$ $\textcircled{<}$ 21.240

$$14 + 7.2 + .004$$

$$21.204$$

f. $0.3 \times 10^2 + 0.007 \times 10^3$ $\textcircled{<}$ $0.3 \times 10 + 0.7 \times 10^2$

$$30 + 7$$

$$37$$

$$3 + 70$$

$$73$$

9. Dr. Mann mixed 10.357 g of chemical A, 12.062 g of chemical B, and 7.506 g of chemical C to make **5 doses** of medicine.

a. About how much medicine did he make in grams? **Estimate** the amount of each chemical by rounding to the nearest tenth of a gram before finding the sum. Show all your thinking.

$$\begin{array}{r}
 10.\overset{\uparrow}{\underline{3}}57 \approx 10.400 \\
 12.\underline{0}02 \approx 12.100 \\
 7.\underline{5}06 \approx 7.500 \\
 \hline
 30.000 \text{ g}
 \end{array}$$

b. Find the actual amount of medicine mixed by Dr. Mann. What is the difference between your estimate and the actual amount?

$$\begin{array}{r}
 10.357 \\
 12.062 \\
 7.506 \\
 \hline
 29.925
 \end{array}$$

$$\begin{array}{r}
 \overset{29.990}{\boxed{30.000}} \\
 - 29.925 \\
 \hline
 00.075 \text{ g}
 \end{array}$$

c. How many grams are in one dose of medicine? Explain your strategy for solving this problem.

$$\begin{array}{r}
 5.985 \text{ g} \\
 5 \overline{) 29.925} \\
 \underline{25} \downarrow \\
 49 \\
 \underline{-45} \downarrow \\
 42 \\
 \underline{-40} \downarrow \\
 25 \\
 25/0
 \end{array}$$

d. Round the weight of one dose to the nearest gram.

$$5.985 \approx 6.000 \text{ g}$$

whole number