Comparing Bits and Pieces UNIT TEST STUDY GUIDE

Name_____Date_____Hour_____

1.) Write each of the following as a fraction, decimal, and percent.

Words	Fraction	Decimal	Percent
a. 20 days out of 100 days	$\frac{20}{100}$ $\left(\frac{1}{5}\right)$	.2 *.20	20%
b. 12 correct out of 25 problems	$\frac{12}{25}$ $\frac{48}{100}$	.48	48%
c. 2 out of 5 games lost	$\frac{2}{5} = \frac{4}{10}$	.4	40%
d. 11 out of 20 candy bars eaten	$\frac{11}{20} = \frac{55}{100}$	.55	55%

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2.) The ratio of female cows to the total cows in a herd on a farm is 10 to 25.

   a. What fraction of the herd is female? What percent is female?

$$\frac{10}{25} = \frac{40}{100} \qquad 40\%$$

   b. What fraction of the heard is male? What percent is male?

$$25 - 10 = 15 \qquad \frac{15}{25} \times \frac{4}{4} = \frac{60}{100} \qquad 60\%$$
Cows   Girls   Boy

3.) Circle the fraction, decimal or percent that is not equivalent to the others. EXPLAIN why it is not equivalent.

a)   7%   0.7   0.70

$\frac{7}{100}$ .07 $\frac{7}{10} = \frac{70}{100}$
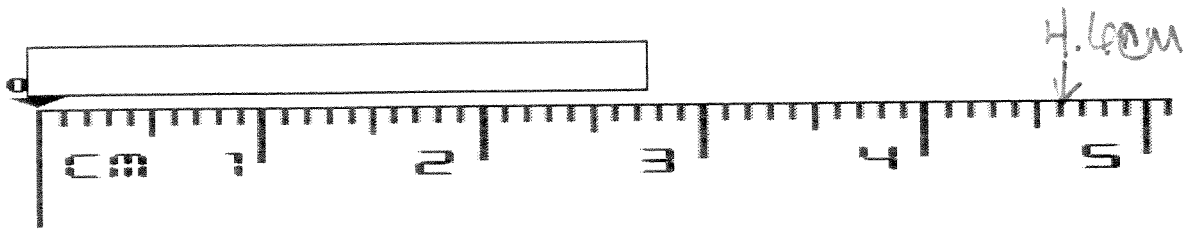
b)   12/5   1.25   2.4

$2\frac{2}{5}$ \$1.25 \$2.40 $\frac{12}{5}$ = $2\frac{2}{5}$
.2.40   = $2\frac{4}{10}$ 2.4

c)   4/25   4.25   16%

$\frac{4}{25} = \frac{16}{100}$ \$4.25 $\frac{16}{100}$ $\frac{2}{5} = \frac{4}{10}$
.16   .16   .4

4.)

4.6cm

a. What fraction of a centimeter is each millimeter? $\frac{1}{10}$ (10 mm per 1cm)

b. Show a mark on the ruler at 4.6cm.

c. How many millimeters is 4.6 cm? ___46mm___

d. According to the ruler, how long is the rectangle? ___~2.7cm 27mm___
    or ~2.8cm 28mm

5.) Order the following decimals from least to greatest:

0.0579   5   0.5   0.59   0.0599   0.05

0.05   0.0579   0.0599   0.5   0.59   5

6.) Order the following decimals from least to greatest:

-1.439 -2.04   -2.4   -0.4299   -2.0499   -2.399

-2.4   -2.399   -2.0499   -2.04   -1.439   -0.4299

7.) For each pair of fractions, decide if they are equivalent or not equivalent. **EXPLAIN.**

1) $^8/_{12} \neq \left(^3/_4\right)$
   .66   .75

2) $-^5/_8 \neq \left(-^6/_{10}\right)$
   -.625   -.6

3) $^5/_4 \neq \left(1^7/_{12}\right)$
   1.25   1.583

8.) Kiera was listening to the radio on her way home from school.   In the twenty minutes it took her to get home, there were five minutes of songs playing and the rest of the time was commercials.

a. What is the ratio of minutes with songs playing to the number of minutes she listened to the radio?   5:20

b. Write your previous answer as a unit rate. 1:4

c. Suppose Kiera continues to listen to the radio. How many minutes will there be songs playing if she listens for one hour?   15:60

9.) How many fourths are in 3 $^5/_4$?

$$\frac{17}{4}$$ 17 fourths

How many sixths are in 2 $^5/_6$?

$$\frac{17}{6}$$ 17 sixths

How many fifths are in 2.6? → 2$^3/_5$

$$\frac{13}{5}$$ 13 fifths

10.) Write each fraction as a decimal.

a. 2 $^3/_{100}$

2.03

b. - $^5/_8$

-0.625

c. $^{21}/_{70}$

0.3

11.) Write each decimal as a fraction.

a. -0.9

$$\frac{-9}{10}$$

$$\frac{-90}{100}$$

b. 0.05

$$\frac{5}{100}$$

c. -3.402

$$-3\frac{402}{1000}$$

$$-\frac{3402}{1000}$$