Name ANSWERS Group Date

uivalent Fractions Strategies:

- Fraction strips
- Common denominator
- Use of Benchmarks

$\frac{-8}{9}$	$<$	$\frac{-5}{11}$	$\frac{-5}{12}$	$>$	$\frac{-6}{12}$	$\frac{2}{3}$	$<$	$\frac{3}{4}$
$\frac{7}{11}$	$>$	$\frac{1}{8}$	$\frac{-1}{2}$	$>$	$\frac{-6}{7}$	$\frac{-1}{10}$	$>$	$\frac{-1}{3}$
$\frac{-3}{5}$	$<$	$\frac{-1}{2}$	$\frac{1}{6}$	$<$	$\frac{8}{9}$	$\frac{-4}{8}$	$<$	$\frac{-2}{6}$
$\frac{-4}{9}$	$>$	$\frac{-9}{11}$	$\frac{-2}{3}$	$>$	$\frac{-4}{5}$	$\frac{-6}{7}$	$<$	$\frac{-3}{5}$

Extra credit? what are some of Mrs. B's hobbies?

Ratios:

Three ways to write: 1. 2 to 4 (Simplified: 1 to 2) 2. 2:4 (1:2) 3. $\frac{2}{4} = \frac{1}{2}$

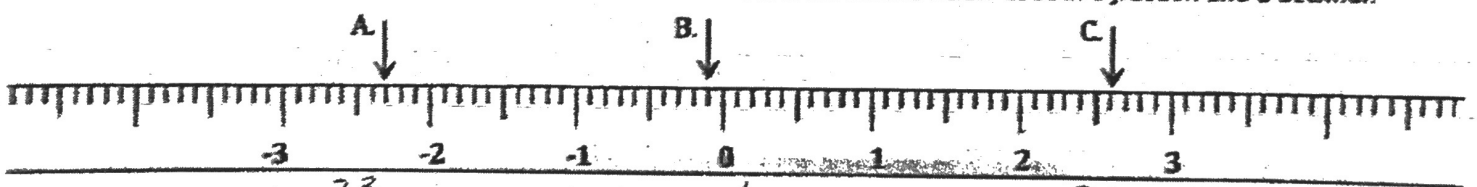
Katie said, "The ratio of people to pets in my family is 2 to 1." If her family has three pets, how many people are in the family? $\frac{2}{1} = \frac{\text{people}}{\text{pets}} = \frac{6}{3}$ 6 people

For every statement: For every 2 people, there is one pet.

Part III: Rational Numbers

1. Fractions 2. Decimals 3. Negative Numbers

Label the arrows below as both a fraction and a decimal:



A. Fraction: $\frac{23}{10}$ B. Fraction: $\frac{1}{10}$ C. Fraction: $\frac{26}{10} = \frac{13}{5}$ OR $2\frac{6}{10} = 2\frac{3}{5}$

Decimal: -2.3 Decimal: -0.1 Decimal: 2.6 largest

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

	Ratio	Fraction	Decimal	Percent
a.	30 days out of 100 days	$\frac{30}{100}$	0.30	30%
b.	20 correct out of 25 problems	$\frac{20}{25}$	0.80	80%
c.	3 out of 4 games won	$\frac{3}{4}$	0.75	75%
d.	21 out of 40 mountain bikes	$\frac{21}{40}$	0.525	52.5%

Part IV: Unit Rate/Rate Table

Lucy is shopping for her younger brother's birthday party. All twelve of their family members will be at the party.

1. She finds a package of four noise-makers for $1.50. At this rate, how many packages will she need to buy so that each person has one noise-maker? 4 : $1.50 = 12 : $4.50

   3 packages -- total $4.50

2. ~~A package of four fancy plastic hats costs $8. What is the unit price of a hat? Write your answer as a comparison statement.~~

   4 hats : $8 = 1 hat : $2

3. A dozen plain hats cost $3.60. What is the unit rate of a hat? Write your answer as a comparison statement.

   12 hats : $3.60 = 1 hat : $0.30

4. Suppose one balloon costs $3. Complete the table to find the cost of different numbers of balloons that Lucy might buy. Using the rate table, what would be the cost of 23 balloons?

   23 balloons : $69

Number of Balloons	1	2	3	4	5	10	12	23
Cost ($)	$3	$6	$9	$12	$15	$30	$36	$69

Part V: Improper Fractions/Mixed Numbers

Write the mixed numbers as improper fractions. Write the improper fractions as mixed numbers.

$2\frac{1}{4} = \frac{9}{4}$ $\quad 8\frac{3}{8} = \frac{67}{8}$ $\quad \frac{7}{5} = 1\frac{2}{5}$ $\quad \frac{9}{4} = 2\frac{1}{4}$

$5\frac{1}{3} = \frac{16}{3}$ $\quad 10\frac{7}{12} = \frac{127}{12}$ $\quad \frac{13}{7} = 1\frac{6}{7}$ $\quad \frac{9}{2} = 4\frac{1}{2}$

$7\frac{5}{6} = \frac{47}{6}$ $\quad 10\frac{3}{7} = \frac{73}{7}$ $\quad \frac{7}{3} = 2\frac{1}{3}$ $\quad \frac{17}{7} = 2\frac{3}{7}$

Part VI: Percents

Rewrite the fractions into decimals and percents:

$\frac{9}{25} = 0.36 = 36\%$ $\quad \frac{6}{24} = \frac{1}{4} = 0.25 = 25\%$ $\quad \frac{12}{40} = \frac{12 \cdot 5}{20 \cdot 5} = \frac{30}{100} = 0.30 = 30\%$ $\quad \frac{2}{10} = 0.20 = 20\%$

Unit 2- Comparing Bits and Pieces- Test Review #2

Name_____ Group_____ Ms. Barbalaco (Turquoise)

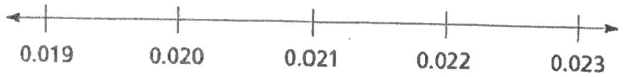
Date_____

Part I: Decimals on the number line

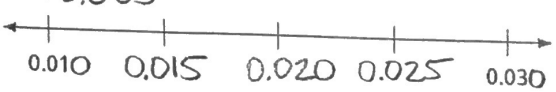
1. For each number line, fill in the missing decimal numbers.

SAMPLE:

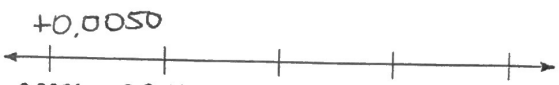
ANSWER:



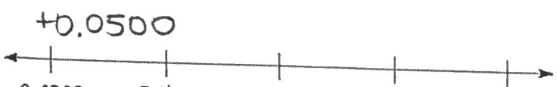
a. +0.005



b. +0.0050



c. +0.0500



2. Put the following set of numbers in order from least to greatest in decimal form:

$$0 \quad \frac{8}{3} \quad \left|-\frac{2}{5}\right| \quad 1\frac{3}{4} \quad \frac{19}{10} \quad \left|-\frac{3}{4}\right|$$

Least → Greatest

$\frac{8}{3} = 2.66$; $\left|-\frac{2}{5}\right| = \frac{2}{5} = 0.4$; $1\frac{3}{4} = 1.75$; $\frac{19}{10} = 1.9$; $\left|-\frac{3}{4}\right| = \frac{3}{4} = 0.75$

DECIMAL	ORIGINAL
0	0
0.4	$\left\|-\frac{2}{5}\right\|$
0.75	$\left\|-\frac{3}{4}\right\|$
1.75	$1\frac{3}{4}$
1.9	$\frac{19}{10}$
2.66	$\frac{8}{3}$

Part II: Conversions

3. Fill in the missing parts of the table.

	Fraction	Decimal	Percent
1	$\frac{3}{8}$		
2		0.88	
3			35%
4	$1\frac{1}{4}$		
5		0.625	
6			275%

#1 $\frac{3}{8}$ → 0.375 → 37.5%

#2 0.88 → 88% → $\frac{88 \div 4}{100 \div 4} = \frac{22}{25}$

#3 35% → 0.35 → $\frac{35 \div 5}{100 \div 5} = \frac{7}{20}$

#4 $1\frac{1}{4} = \frac{5}{4}$ → 1.25 → 125%

#5 0.625 → 62.5% → $\frac{625 \div 25}{1000 \div 25} = \frac{25 \div 5}{40 \div 5} = \frac{5}{8}$

#6 275% → 2.75 → $\frac{275}{100} = \frac{11}{4} = 2\frac{3}{4}$

Remember:

$$\text{Divisor}\overline{)\text{Dividend}} \quad \text{Quotient} \qquad \frac{\text{Dividend}}{\text{Divisor}} = \text{Quotient}$$

4. Rewrite the percent of 15% as a fraction (simplify if possible) and as a decimal:

15% $\quad \frac{15 \div 5}{100 \div 5} = \frac{3}{20} \quad$ 0.15

Extra credit Answer:
some of Mrs. B's hobbies are running, drawing, painting, reading & being outdoors.

Part II: Word Problems

5. Out of a class of 40 students, there are 8 students that have dimples.

a. What is the fraction of students that do not have dimples?

$40 - 8 = 32$

$\frac{32 \div 8}{40 \div 8} = \boxed{\frac{4}{5}}$ of students do Not have dimples

b. What is the percent of students that do not have dimples?

$5\overline{)4.0}$ -40 0 → 0.80 = 80% of students do NOT have dimples

6. In a class of 24 sixth-graders, 25% walk to school, $\frac{1}{8}$ ride bicycles to school, $\frac{1}{3}$ take the bus, and the remainder of the class are driven to school by their parents or guardians.

a. How many students in the class walk to school?

$\frac{25 \div 25}{100 \div 25} = \frac{1}{4}$ $\quad \frac{1 \cdot 6}{4 \cdot 6} = \frac{6}{24}$

6 students walk to school

b. How many students in the class ride bicycles to school?

$\frac{1 \cdot 3}{8 \cdot 3} = \frac{3}{24}$

3 students ride bicycles to school

c. How many students in the class take the bus to school?

$\frac{1 \cdot 8}{3 \cdot 8} = \frac{8}{24}$

8 students take the bus to school

d. What fraction of the class are driven to school by their parent or guardian?

$6 + 3 + 8 = 17$ ← students that walk, ride bikes or bus.

$24 - 17 = 7$ ← driven

$\frac{7}{24}$ of class are driven to school by parent or guardian

e. What percentage of the students in the class walk, ride bicycles or the bus, or are driven to school by a parent or guardian?

Walk

25% (given)

Ride Bikes 12.5%

$8\overline{)1.000}$ → 0.125 (−8, 20, −16, 40, −40, 0)

Ride BUS 33.3%

$3\overline{)1.00}$ → $0.33\overline{3}$ (−9, 10, −9, 1)

Driven 25%

$24\overline{)6.00}$ → 0.25 (−48, 120, −120, 0)