7TH Grade Math EXIT TEST – Part 1

REAL NUMBER OPERATIONS

Addition and Subtraction of Rational Numbers

1. $\frac{4}{10} + \frac{3}{10} + \frac{5}{10} =$

2. $\frac{9}{6} - \frac{2}{6} - \frac{5}{6} = \quad -$

Order of Operations: PEMDAS

Parentheses, **E**xponents, **M**ultiplication, **D**ivision, **A**ddition, **S**ubtraction

1. 4 x 3 + 6 (3 x 4) = ____
2. (9 + 7) x 4 – 12 = ____
3. 42 x (8 – 3) = ____
4. 5 + 8 x 2 – 4 = ____

Equivalent Fractions: Multiply by numerator or denominator by the same number

Example:

$\frac{6}{7} = \frac{18}{21}$ → 7 x 3 = 21, 6 x 3 = 18

$\frac{2}{3} = \frac{10}{15}$ → 2 x 5 = 10, 3 x 5 = 15

1. $\frac{3}{5} = \frac{6}{_}$
2. $\frac{5}{8} = \frac{25}{_}$
3. $\frac{1}{8} = \frac{_}{32}$
4. $\frac{6}{7} = \frac{_}{21}$

Simplifying Fractions:

Step 1: Find the factors for the numerator and denominator in each fraction.

Step 2: Divide the numerator and denominator by the greatest factor they have in common (reduce to its simplest terms)

Step 3: Write the new equivalent fraction

1. $\frac{8}{14} \div \frac{\square}{\square} = \frac{\square}{\square}$

2. $\frac{8}{28} \div \frac{\square}{\square} = \frac{\square}{\square}$

3. $\frac{35}{91} \div \frac{\square}{\square} = \frac{\square}{\square}$

LIVEWORKSHEETS

Adding and Subtracting Fractions Using Butterfly Method:

Step 1: Circle the numerator of fraction 1 and the denominator of fraction 2
Step 2: Circle the numerator of fraction 2 and the denominator of fraction 1

Make wing pairs with the 2 fractions

Step 3: Multiply the wing pairs of the 2 fractions. Write the product of each on the top of it's wing.
Step 4: Multiply the denominators
Step 5: Subtract the products of the multiplied numerators
Step 6: Simplify the fraction if needed ***not always needed***

21 - 8

$\frac{3}{4}$ $\frac{2}{7}$

X

4 x 2 = 8

4 x 2 = 21

4 x 7 = 28

$\frac{21-8}{28} = \frac{13}{28}$

1. $\frac{4}{5} - \frac{1}{4} = \frac{\square}{\square}$

5 x 1 = ___

4 x 4 = ___

16 – 5 = ___

5 x 4 = ___

2. $\frac{5}{10} - \frac{2}{5} = \frac{\square}{\square}$

___ x ___ =___

___ x ___ = ___ — = —

___ – ___ = ___

___ x ___ = ___

3. $\frac{2}{6} + \frac{3}{6} =$

___x ___= ___

___x ___= ___

___+ ___= ___ — = —

___x ___= ___

Additive Inverse

Write the Additive Inverse for each of the following fractions:

1. $\frac{-2}{5}$ _ **2.** $\frac{1}{3}$ _ **3.** $\frac{-7}{8}$ _ **4.** $\frac{5}{6}$ _

Exponents and Exponential Notation

Write the correct exponent:

1. 5 x 5 x 5 x 5 x 5 x 5 = ____
2. 3 x 3 x 3 x 3 = ____
3. 9 x 9 x 9 x 9 = ____

Write out Expanded Form:

4. 8^2 = _____
5. 9^4 = _____
6. 3^5 = _____

LIVEWORKSHEETS

Square Roots

Write the square root of each:

1. $\sqrt{64}$ ___ **2.** $\sqrt{49}$ ___ **3.** $\sqrt{4}$ ___ **4.** $\sqrt{36}$ ___ **5.** $\sqrt{25}$ ___

ESTIMATION STRATEGIES

Rounding:

Round each of the following numbers to the nearest Hundred:

1. 485 ____ 2. 294 ____ 3. 108 ____ 4. 826 ____ 5. 359 ____

Round each of the following numbers to the nearest Tenth:

6. 395 ____ 7. 491 _____ 8. 2945 _____ 9. 274 ____ 10. 6457 _____

Estimation in Addition and Subtraction - Estimating Sum:

Round each number and it's sum to the nearest Tenth:

1.
$$\begin{array}{r} 446 \\ +\ 78 \\ \hline \end{array} \longrightarrow \begin{array}{r} \boxed{} \\ +\ \boxed{} \\ \hline \boxed{} \end{array}$$

2.
$$\begin{array}{r} 95 \\ +\ 42 \\ \hline \end{array} \longrightarrow \begin{array}{r} \boxed{} \\ +\ \boxed{} \\ \hline \boxed{} \end{array}$$

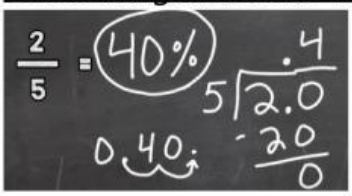
Order of Operations

Work the following problems using the Order of Operation Rules (PEMDAS)

1. (13 – 4) + 16 ÷ 2 = ____ 2. 4 x 4 x (7 – 8) = ____ 3. (14 – 7) x 8 – 6 = ___

PERCENTAGES

Converting Fractions to Percents



1. $\frac{23}{50}$ _____% **2.** $\frac{11}{25}$ _____% **3.** $\frac{9}{20}$ _____% **4.** $\frac{7}{10}$ _____%

LIVEWORKSHEETS

Simple Interest & Percent Change

Hint: Answers must be writing in this format: **$1,000**

Formula

$$SI = \frac{P \times R \times T}{100}$$

SI = Simple Interest

P = Principle amount ($ money borrowed or invested)

R = Rate (%)

T = Time (in years)

1. Paula deposited $1200 in a savings account for one year at 6% simple interest per annum.

   (a) Calculate the interest after 1 year.

   Answer = _____

   (b) Calculate the amount in her account after 1 year.

   Answer = _____

Mark Up & Mark Down

1. Breon, Karlene and Latoya own a convenience store. They bought 650 cases of cream at $10.00 a case. What is their overall profit if they sold all of the cases for $8,500.00?

2. Brittney, Martinique and Destee run a successful beauty supply shop. They bought 25 bags of **100% Real Human Hair** for $800. If they sold them at a 15% markup, what was the selling price of one bag of hair?

Taxes & Discounts

Discounts and Taxes Worksheet

Carefully read and answer the following:

1. A car valued at $45 000 is sold at a 10% discount. How much was actually paid for the car?

   Actual amount paid is $

2. Ryan bought a computer marked $1 500 and received a 5 % discount. How much did he pay for the computer?

   He paid $

Interest Rates

Simple Interest Worksheet

Directions: Calculate the following simple interest problems. Write your answers in the space provided; show your work. Use the formula I = P x R x T and round your answers to the nearest cent.

1a. I = _____	1b. I = _____	1c. I = _____	1d. I = _____
P = $500	P = $50	P = $1000	P = $600
R = 8%	R = 12%	R = 18%	R = 15%
T = 3 years	T = 1 year	T = 24 years	T = 30 years

LIVEWORKSHEETS