Dear Super Sixth Grade,

Good morning! Today is THINKING THURSDAY!

What are some things you THINK you can do to prepare for your Unit 4 Test?

- Let's have a GREAT Day!
- Mrs. Oakes

HOMEWORK:

STUDY FOR UNIT 4 TEST

Unit 4 Test Review

OBJECTIVES:

- Students will review for the Unit 4 Test
- Students will practice Unit 4 Skills
  -adding, multiplying and dividing with fractions
  -converting between mixed numbers and improper fractions
  -comparing fractions
  -identifying primes and composites

PRIMES AND COMPOSITES

COMPOSITE NUMBERS:

- A number greater than 1 that has more than two whole number factors.

- Example: 14
  Factors: 14, 7, 2, 1

PRIME NUMBERS:

- A whole number great than 1. It has exactly two whole-number factors: 1 and itself.

Example: 3   Factors of 3: 3, 1

Number	Prime, Composite, or Neither
12	?
21	?
4.4	?
23	?
–5	?
2	?

QUICK CHECK: Which number is Composite

A. 43

B. 24

C. 5

D. 29

PRIME FACTORIZATION-

- Breaking a COMPOSITE number down into it's prime factors.

30

Prime Factorization of 30:

36

- **Prime Factorization of 36:**

QUICK CHECK

Find the Prime Factorization

20

A. 2^2 x 5

B. 5 x 4 x 2

C. 10 x 2

LEAST COMMON MULTIPLE

Find the Least Common Denominator (LCD) of 1/3 and 2/6

Find the LCM of 3 and 6:

3-_____

6-_____

LCM:

LCD:

REWRITE FRACTIONS and COMPARE:

Quick Check

- Compre 2/4 and 2/6
  (Find LCD, rewrite fractions, compare)

A. >

B. <

C. =

Quick Check

- Compare 2/6 and 2/12
  (Find LCD, rewrite fractions, compare)

A. >

B. <

C. =

MIXED NUMBERS AND IMPROPER FRACTIONS

Watch Me!

Steps:

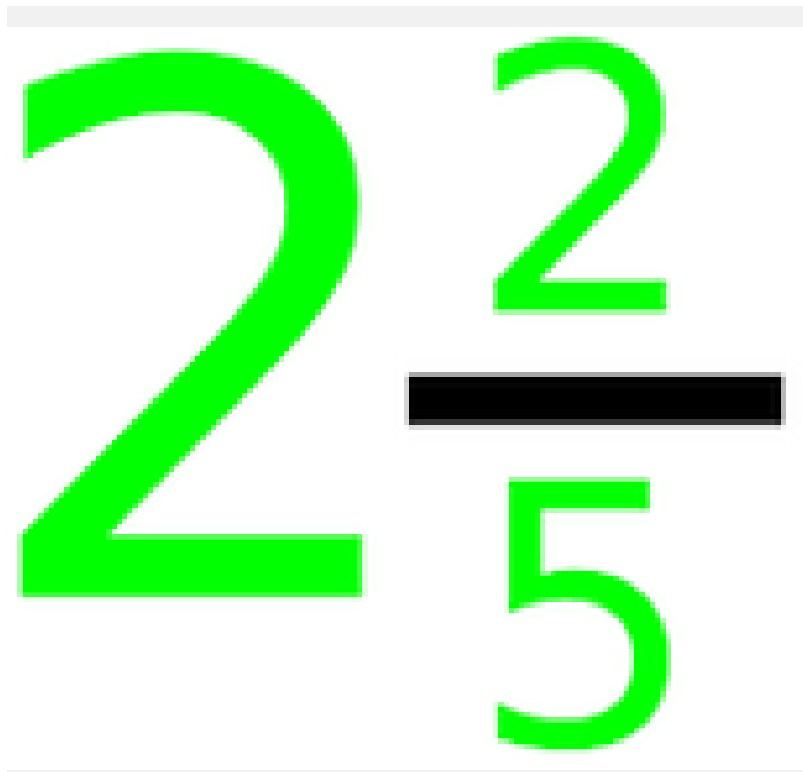1. Multiply the Denominator and whole number

   3x6 = 18

2. Add the numerator

   18 + 1 = 19

3. Keep the denominator the same

   Denominator = 2

$$6 \overset{+}{\underset{\times}{\frac{1}{3}}}$$

- Multiply the denominator by the whole number
- Add the numerator to that number
- Keep the denominator the same

$$2\dfrac{2}{5}$$

Quick Check:

- Convert the mixed number into an improper fraction:

A. 9/3

B. 16/3

C. 18/3

$$5\frac{1}{3}$$

- Multiply the denominator by the whole number
- Add the numerator to that number
- Keep the denominator the same

Watch Me!

- **<u>Pretend the Fraction is a division problem.</u>**
  1. Divide the numerator by the denominator
  2. Your "answer" is the whole number
  3. Your remainder becomes your new numerator
  4. Keep the denominator the same!

$$\frac{5}{3}$$

Quick Check

- Convert 5/2 into a mixed number

A. 3

B. 2 ½

C. 2 2/3

MULTIPLYING FRACTIONS AND MIXED NUMBERS

Multiplying Fractions

Directions:
-Multiply the Numerators
-Multiply the Denominators
-Simplify if you can

$$\frac{4}{6} \times \frac{2}{5}$$

QUICK CHECK:

- Multiply the fractions.

A. 8/13
B. 7/13
C. 7/36

$$\frac{7}{9} \times \frac{1}{4} = \underline{\hspace{2cm}}$$

Multiplying Fractions

Directions:
-Multiply the Numerators
-Multiply the Denominators
-Simplify if you can

$$\frac{4}{6} \quad \text{x} \quad \frac{2}{5}$$

QUICK CHECK:

- Multiply the fractions.

A. 8/13
B. 7/13
C. 7/36

$$\frac{7}{9} \times \frac{1}{4} = \underline{\quad}$$

CHALLENGE: What if the problem has three fractions?

Multiply: $\dfrac{8}{3} \cdot \dfrac{5}{7} \cdot \dfrac{1}{12}$

What if it's a mixed number, Mrs. Oakes?

- Change to an improper fraction, then…..
MULTIPLY the numerators
MULTIPLY the denominators

$$4 \frac{1}{2} \cdot 1 \frac{2}{5} =$$

- Change to an improper fraction, then.....
MULTIPLY the numerators
MULTIPLY the denominators

$$4\frac{1}{2} \times 6\frac{2}{5}$$

Quick Check:

- Multiply the Mixed Numbers:

A. 4 ½

B. 9/2

C. 3 12/17

$$1\frac{3}{4} \times 2\frac{4}{7}$$

QUICK CHECK:

I want to build a closet in my bedroom. I want it to be 3 ½ feet wide and 2 ¾ feet long. What will the area of my closet be?

A. 5 and 4/6 ft sq.

B. 77/8 ft. sq

9 and 5/8 ft sq.

DIVIDING FRACTIONS

DIVIDING BY FRACTIONS

1. FLIP the Fraction upside down to is RECIPROCAL
2. MULTIPLY
3. Reduce if you can

Divide.

To divide by a fraction, rewrite the problem as multiplication by the reciprocal. Then multiply. Look at this example.

$$\frac{5}{8} \div \frac{1}{3} = \ ?$$

Rewrite problem.

$$\frac{5}{8} \div \frac{1}{3} = \frac{5}{8} \cdot \frac{3}{1}$$

Change the division sign to a multiplication sign. Change the divisor to its reciprocal.

Multiply.

$$\frac{5}{8} \cdot \frac{3}{1} = \frac{15}{8}$$

Multiply the numerators.
Multiply the denominators.

Convert.

$$\frac{15}{8} = 1\frac{7}{8}$$

Convert the improper fraction to a mixed number.

DIVIDING BY FRACTIONS

1. FLIP the Fraction upside down to is RECIPROCAL
2. MULTIPLY
3. Change back into mixed number or reduce if you can

Divide.

$$\frac{6}{7} \div \frac{3}{5}$$

QUICK CHECK

$$\frac{2}{5} \div 3 =$$

A. 3/5

B. 2/15

C. 2/8

DIVIDING FRACTIONS WITH VARIABLES

$$\frac{3}{4}x = 15$$

$$\frac{3}{4}x \div \frac{3}{4} = 15 \div \frac{3}{4}$$

$$x \cdot \frac{3}{4} \cdot \frac{4}{3} = 15 \cdot \frac{4}{3}$$

Solve.

$$\frac{f}{3} = 18$$

Solve.

Ms. Moreno ships a box of books weighing $16\frac{5}{8}$ pounds. Each book weighs $\frac{7}{8}$ pound.

How many books are in the box?

Complete this problem about the weight of books. Drag the numbers to the correct place in the equation.

The weight of each book	times	the number of books	equals	the total weight.
[ ]	·	[ ]	=	[ ]

Solve.

A carpenter cuts a board into three pieces that are each $7\frac{1}{8}$ inches long.

How long was the board before it was cut?

The original length of the board $\div$ number of equal pieces $=$ length of each piece

$$\frac{p}{3} = 7\frac{1}{8}$$

A. 22 and 4/8 inches long

B. 7 and 1/24 inches long

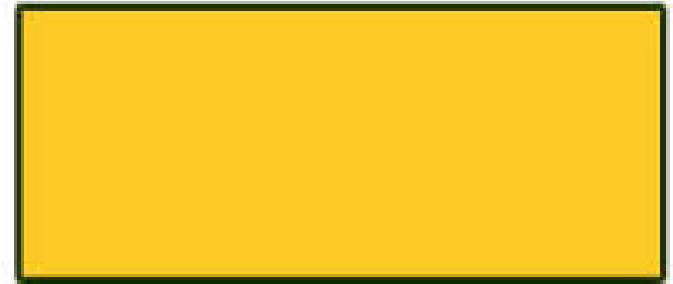C. 21 and 3/8 inches long

ADDING FRACITONS WITH UNLIKE DENOMINATORS

1. Find Least Common Denominator

    6_____

    9_____

$\dfrac{2}{9}$ **+** $\dfrac{1}{6}$

2. Rewrite Equivalent Fractions

3. Add

6 1/8

3 2/5

What is the perimeter?

Find LCD.

5_____

8_____

Rewrite Equivalent Fraction:

Add:

1. Find LCD.

3_____

4_____

2. Rewrite Equivalent Fraction:

3.Add:

1 2/3

5 1/4
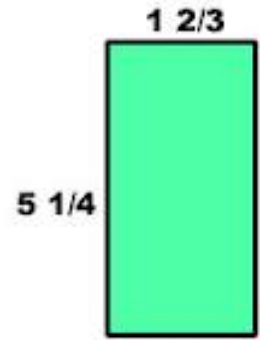
SELECT AN ANSWER USING POLLING TOOLS:

A. 6 and 11/12

B. 12 and 22/12

C. 13 and 10/12 (or 13 and 5/6 reduced)

Converting Between

Fractions & Decimals

Let's convert $\frac{7}{8}$ to a decimal.

$$8\overline{)7}$$

Convert $5\frac{9}{20}$ to a decimal.

Step 1: Convert $\frac{9}{20}$ to a decimal.   Step 2: Add the whole number.

QUICK CHECK

- Convert 2/8 into a decimal:

A. .28

B. .40

C. .25

CONVERTING DECIMALS TO FRACTIONS

SAY IT OUT LOUD!!!

Decimal to Fraction

$$2.93 = 2\frac{93}{100}$$

Convert 6.208 to a mixed number.

$$6.208 = 6\,\frac{208}{\boxed{}} = 6\,\frac{26}{\boxed{}}$$

SAY IT, WRITE IT!

- 5.5   0.8

- 6.25

- 2.80

QUICK CHECK

SAY IT, PICK IT!
Convert 7.38 into a fraction

A. .738

B. 7 and 38/100

C. 7 and 38/50

QUESTIONS?

HOMEWORK:

STUDY FOR UNIT 4 TEST