Unit 2 Day 3
Title For Your Notebook: Prime Factorization
A PRIME NUMBER is a number a \# with 2 factors $[1$ and itself $]$
FACTORS are numbers that multiply to become a nother numbers - something -is diusible by --........ (spesifes)

Find the factors of the following and write in order from least to greatest.


1. 50
2. 32
3. 15
4. 17
$1,2,4,5,8,10,16,70,40,800^{6}$
5. 100
6. 7

Prime Factorization is $\qquad$

To find the Prime Factorization, you will use factor tree.

Find the prime factorization.

1. 21

2. 27

.
3. 

U TRY These!

1. 8
2. 28
3. 80
4. 6
5. 32
6. 75

A Multiple_ of a number is a product of that number and any whole number.
The smallest multiple that 2 or more numbers have in common is the le as Common multiple.


Unit 2 Day 4
Title For Your Notebook: Simplifying fractions
A fraction is in Simplest form when the top and bottom cannot be any smaller (while still being whole numbers)
How to Simplify Fractions: Divide top and bottom by each common factor ... or Greatest common factor

Simplify the following fractions:

1. $\frac{6}{8} \div 2=2=\frac{3}{4}$


U Try!

1. $\frac{4}{10} \div 2=2=\frac{2}{5} \quad$ 2. $\frac{6}{12}$
2. $\frac{6}{12} \quad$ 3. $\frac{20}{30}$

3. $\frac{4}{6}$
4. $\frac{15}{20}$

Title for Your Notebook: Comparing Fractions

To compare fractions you determining which fraction is the larger/b.gger and which fraction is the smaller

There are two ways to do this:
Method 1:
Method 2:
Get common
denominator

Let's Try! Compare the fractions:


U Try!

1. $\frac{1}{6} \frac{4}{6}$
2. $\frac{1}{4} \quad \frac{1}{8}$
3. $\frac{3}{6} \quad \frac{8}{12}$
4. $\frac{5}{6} \quad \frac{2}{15}$
5. $\frac{1}{15} \quad \frac{4}{5}$
6. $\frac{3}{4} \quad \frac{1}{3}$
7. $\frac{2}{4} \quad \frac{4}{8}$
8. $\frac{3}{7} \quad \frac{2}{3}$

Fundamentals of Math http://www.educationworld.com/a_lesson/dailylp/dailylp/dailylp201.shtml Unit 2 Day 6

$$
\text { I's } 10^{\text {thy }} / 100^{t^{h_{4}}} \sqrt{1000^{\text {th }}} 10000^{\text {th3 }}
$$

Title for Your Notebook: Fraction and Decimal Conversion

Turning a Decimal into a fraction:
$\qquad$ it. $\qquad$ it. $\qquad$ it.

Let's try it!

1. $0.710^{74} \frac{7}{10}$
2. $0.2 \frac{2}{10 \div 2}=\left(\frac{1}{5}\right.$
3. $0.4 \frac{4 \div 2}{10+6} \quad \frac{2}{5}$

4. $\frac{0.13}{100^{\text {ths }}} \frac{13}{100}$
5. $0.25 \quad \frac{25 \div 5}{100^{+1}} \frac{5 \div 5}{100 \div 5}=\frac{6}{20} 5\left(\frac{1}{4}\right) \frac{52}{100^{\text {th }}} \frac{52}{100}$


U Try!

1. 0.25
2. 0.8
3. 0.75
4. 0.6
5. 0.88
6. 0.94

Turning a Fraction into a Decimal:
Remember a fraction is another way to write _ vision__.

So, to turn a fraction into a decimal you divide the $\qquad$ by the bottom

Let's Try It!

1. $\frac{2}{8}$
2. $\frac{1}{3}$
3. $\frac{5}{6}$
$\frac{0.8 \overline{3}}{0.833}$
4. $\frac{6}{10}$

$6.8=48$
6) $\frac{0.833}{5.000}$
$6 \cdot 3=18$
$6.3=18$


U Try!

1. $\frac{7}{10}$
2. $\frac{4}{9}$
3. $\frac{6}{12}$
4. $\frac{4}{5}$

Fundamentals of Math
Unit 2 Day 7

Title For Your Notebook: Adding and Subtracting Fractions

First of all, what is a fraction? $\qquad$ _.

What does it look like?


Think about a pizza. If a pepperoni pizza is cut into five slices and you eat one, then a cheese pizza is cut into five slices and you eat two, you've eaten $\frac{1}{5}$ and $\frac{2}{5}$ of each pizza. How much pizza have you eaten total?


So, when you add fractions with the same denominator the only things you add are the numerator (top) $!$

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Let's try!
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But what if the denominators aren't the same? We need to find the Common denominator!
Example 1: $\operatorname{Ad}\left(\frac{3}{5}\right) \frac{7}{10} \quad \frac{3}{5} \cdot 2=\frac{6}{10}+\frac{7}{10}$ Step 1 Uh at is the smallest number that her 5 and multiply to?
step 2) But wait, ven cans just change the denominatorbuthout hanging the minneratort
What couldreou multioty 5 by to get 10? $\qquad$ Multiply 3 by that same number!

Step 3) Our problem now looks like...

$$
\frac{6}{10}+\frac{7}{10}
$$

Step 4) Now that our denominators are the same, just add the numerators!

$$
\frac{(+77}{10}=\left(\frac{13}{10}\right)
$$

Let's try some more!


Subtracting with Like Denominators

1) $\frac{5}{4}-\frac{3}{4}$

2) $\frac{3}{2}-\frac{1}{2}, \frac{3-1}{2}$

3) $\frac{2}{5}+\frac{4}{5} \quad \frac{2+4}{5}=\frac{6}{5}$ or $1 \frac{1}{5}$
4) $\frac{1}{3}-\frac{1}{3}=\frac{1-1}{3}=\frac{0}{3}=0$

## Subtracting with Different Denominators

Use the same process you used with adding, but subtract this time!
Subtract $\frac{9}{5}-\frac{5}{8}$

Step 1) What is the smallest number that both 5 and 8 multiply into? $\qquad$
That will be our new denominator!
Step 2) But wait, you can't just change the denominator without changing the numerator! What could you multiply 5 and 8 by to get 40 ? $\qquad$ Multiply the numerators by those numbers!

Step 3) Our problem now looks like...

Step 4) Now that our denominators are the same, just subtract the numerators!
7) $\frac{5}{3}-\frac{2}{5}$
8) $\frac{7}{4}-\frac{6}{7}$

$\frac{1}{3} \cdot 2=\frac{2}{6}$
10) $\frac{4}{3}-\frac{6}{7}$

Title For Your Notebook: Multiplying Fractions and Dividing Fractions
Unit 1, Day 9

Multiplying fractions is even easier than adding and subtracting them! All you have to do is

Example 1 : Multiply and simplify $\frac{5}{6} \cdot \frac{4}{3}$

Example 2: Multiply and simplify $-\frac{3}{5} \cdot \frac{7}{3}$

## Practice!

1) $-\frac{5}{4} \cdot \frac{1}{3}$
2) $\frac{8}{7} \cdot \frac{7}{10}$
3) $\frac{4}{9} \cdot \frac{7}{4}$
4) $-\frac{2}{3} \cdot \frac{5}{4}$
$\square$
Dividing fractions is a little tricker! In order to divide, we have to use the -method! Then, we just
multiply!

Example 1: Divide and simplify $\frac{1}{2} \div \frac{8}{7}$
Step 1: Keep - change - flip!
Step 2: Multiply numerators and denominators.
Step 3: Simplify if necessary.

Example 2: Divide and simplify $-\frac{1}{7} \div \frac{9}{4}$

Practice!
11) $\frac{-1}{5} \div \frac{7}{4}$
12) $\frac{-1}{2} \div \frac{5}{4}$
13) $\frac{-3}{2} \div \frac{-10}{7}$
14) $\frac{1}{2} \div \frac{8}{7}$

