Comparing Fractions, Decimals, and Percents

Fractions can be your friend!

- A fraction is made up of two parts.
- The top part is called the _numerator_.
- The bottom part is called the _denominator_.

$\frac{3}{8}$  numerator

 denominator

Converting Fractions Into Decimals with a calculator is Easy!

- The first thing you do is type in the numerator
- Then you press the division key
- The next thing you do is type in your denominator
- Press the equal sign
- Then PRESTO you are now converted!

Now Let's Try It!

- Convert $\frac{7}{12}$ into a decimal.
- The answer is $5.8\overline{3}$.

- Now convert $\frac{6}{100}$ into a decimal.
- The answer is .06.

- Finally, let's convert $\frac{27}{80}$.
- The answer is .3375.

Sometimes it is necessary to take a fraction and reduce it to its simplest form. Here is a review:

- First you need to see if they have any common factors.
- The easiest way to do this is to factor both the numerator and denominator down to all prime numbers
- Then circle all of the numbers that both the numerator and denominator have in common
- Next multiply these common factors for either the numerator or denominator together
- Finally, divide both your numerator and denominator by this number
- Presto you are now simplified! Aaaah! The simple life!

Here is a demonstration:

Can 24/32 be simplified?

$$\frac{24}{32}$$

Let your brilliant teacher show you how to create a factor tree for each of these on the board.

Converting Percents to Decimals is Even Easier!

- All you need to do is move your decimal point over ___two___ places to the left
- Then remove that worrisome ___percent___ symbol
- And Abracadabra you have converted a percent into a ___decimal___ !

.37% = ___.37___

Hint: If there is no decimal, you start by putting one to the far right of the number and then begin!

Now it's your turn!

- 98% = .98
- 71% = .71
- .06% = .0006
- 7.1% = .071
- .9% = .009
- 26% = .26

You are a Genius!

Now let's talk about decimals!

- Decimals are just like regular numbers
- The bigger the decimal . . . The bigger the number

Which is bigger?

.045 or .45?

To figure this out you need to fill in a zero at the end so that they are even, and then imagine that the decimal is no longer there. This would give you 045 and 450. Now which one is bigger? .45

Here comes the tricky part! Now we have to learn how to put a list of fractions, decimals and percents in order from least to greatest!

- The first thing we need to do is write each one of them on a line going down our paper.
- Next we need to convert each of them into decimals
- Then we need to put a little letter beside each of them – with "A" being the littlest and "D" being the greatest
- Finally we need to re-order them from least to greatest in their original form using our letter system
- If you have a multiple choice question, then at this point you need to choose the answer that looks like yours, if not then just write your answer!

Okay, so now it's your turn!

Which list of numbers is in order from least to greatest?

a)0.3, 4/5, 27%, 0

b)27%, 0.3, 0, 4/5

c)4/5, 0, 0.3, 27%

d)0, 27%, 0.3, 4/5

It may seem really hard, but I promise you it is not that bad!

Let's take it one step at a time: The first thing we need to do is write each one in a line going down our paper. Since we have four different choices we should start with choice "A" and convert those.

- 0.3

Now this first one is already a decimal so we are going to leave it alone for now.

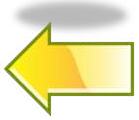
- 4/5
- 27%
- 0

Next we need to convert each of them into decimals

- 0.3
- 4/5

Remember to type in 4 divided by 5 equals into your calculator

- 27%



Don’t forget to move that decimal two places to the right!

- 0

So let's see if you are right?

- 0.3 = 0.3
- 4/5 = 0.8
- 27% = 0.27
- 0 = 0

Now we need to make sure that our decimals all have the same number of places.

- 0.3 = 0.3
- 4/5 = .8
- 27% = .27
- 0 = 0

Since this number has two places behind the decimal let's add zeros and a decimal (if missing) to the rest to make them all even.

Since .27 has two places behind the decimal let's add zeros and a decimal (if missing) to the rest to make them all even.

- 0.3 = 0.3 = 0.30
- 4/5 = .8 = 0.80
- 27% = .27 = 0.27
- 0 = 0 = 0.00

Then we need to put a little letter beside each of them – with "A" being the littlest and "D" being the greatest

- 0.3 = 0.3 = 0.30 C
- 4/5 = .8 = 0.80 D
- 27% = .27 = 0.27 B
- 0 = 0 = 0.00 A

Finally we need to re-order them from least to greatest in their original form using our letter system

- 0.3 = 0.3 = 0.30 C
- 4/5 = .8 = 0.80 D
- 27% = .27 = 0.27 B
- 0 = 0 = 0.00 A

0,27%, 0.3, 4/5 is the proper order

0,27%, 0.3, 4/5 is the proper order, so what is the best answer?

Which list of numbers is in order from least to greatest?

a)0.3, 4/5, 27%, 0

b)27%, 0.3, 0, 4/5

c)4/5, 0, 0.3, 27%

d)0, 27%, 0.3, 4/5

If you guessed “D” then you are a math whiz!

The End

*** This extraordinary Power Point was created by one of the best teachers in the entire world!

Drum roll, Please!

Mrs. Hacker