Grade 7/8 Math Changing Decimals to Fractions

Name: _____ Class: ____

When we see a mixture of decimals and fractions in an operation, it is better to convert both to a decimal or both to a fraction so that we can find the correct answer.

If we have the following operations

$$\frac{6}{8} + 0.4 \div \frac{2}{5}$$

In order to solve it, we can convert the two fractions to decimals or the one decimal to a fraction. In order to change any decimal to a fraction, you have to find out which decimal place is the farthest to the right and then put that number over the place. Here is the 0.4 above. The four is in the tenths place and we have 4 tenths, so we write 4 over 10

$$\frac{4}{10}$$

This can be reduced by dividing out the 2 from the numerator and the denominator to give us the answer of –

$$\frac{6}{8} + \frac{2}{5} \div \frac{2}{5}$$

Now we can solve the problem (the first step is to invert and multiply)

$$\frac{6}{8} + \frac{2}{5} \times \frac{5}{2}$$

Either cross reduce or do the multiplication and realize that the product is 1.

$$\frac{6}{8} + 1$$

Now, you could make the whole number a fraction, but you would eventually just get

$$1\frac{6}{8}$$

Which can be reduced to

$$1\frac{3}{4}$$ Yay!

Try the changing the following decimals to fractions (I have done the first two for you).

1. 0.75 *In this case, the last digit in in the hundredths place and there are 75 hundredths.*

$= \frac{75}{100}$ *We can reduce this by dividing out the 5 and then the 5 again or just dividing by 25 to get*

$= \frac{3}{4}$

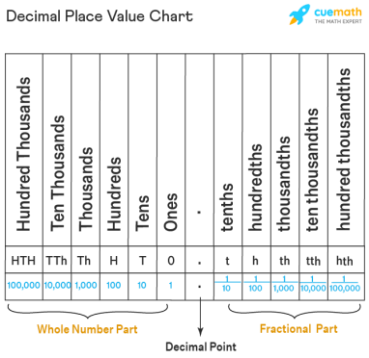
2. 1.125 *In this case, the last digit in in the thousandths place and there are 1125 hundredths.*

$= \frac{1125}{1000}$ *We can reduce this by dividing out the 5 and then the 5 again or 25 to get*

$= \frac{45}{40}$ *We can reduce this by dividing out the 5 to get*

$= \frac{9}{8}$

$= 1\frac{1}{8}$ Yay!



3. 0.8 4. 0.05 5. 0.675 6. 0.125

7. 0.25 8. 1.5 9. 3.6 10. 3.14

Your answers have to be one of the following *(Yes, I know that they are improper and you should always express your answers in mixed fractions if they are improper but it would be too easy to tell which are which if they were mixed.)*

$\frac{1}{20}$ $\frac{1}{8}$ $\frac{1}{4}$ $\frac{27}{40}$ $\frac{4}{5}$ $\frac{3}{2}$ $\frac{18}{5}$ $\frac{157}{50}$