Fractions, Decimals, and Percents

Thursday, March 01, 2012
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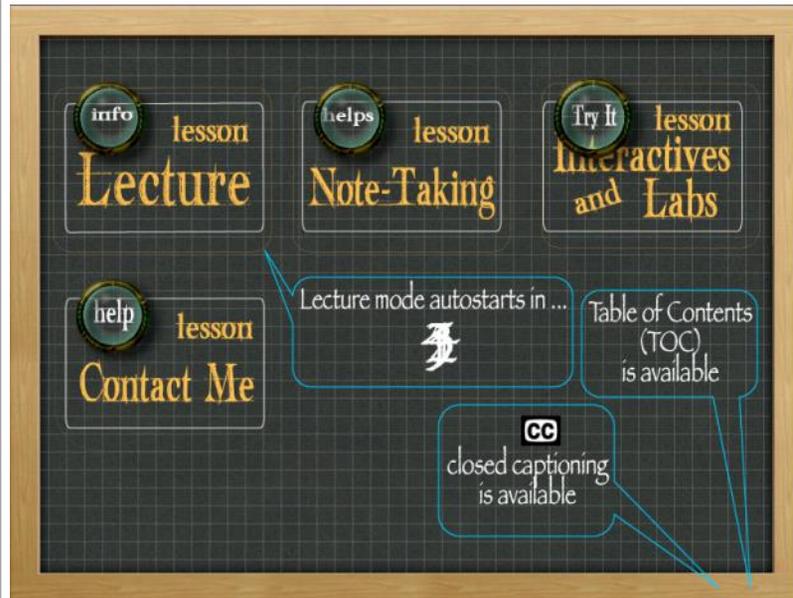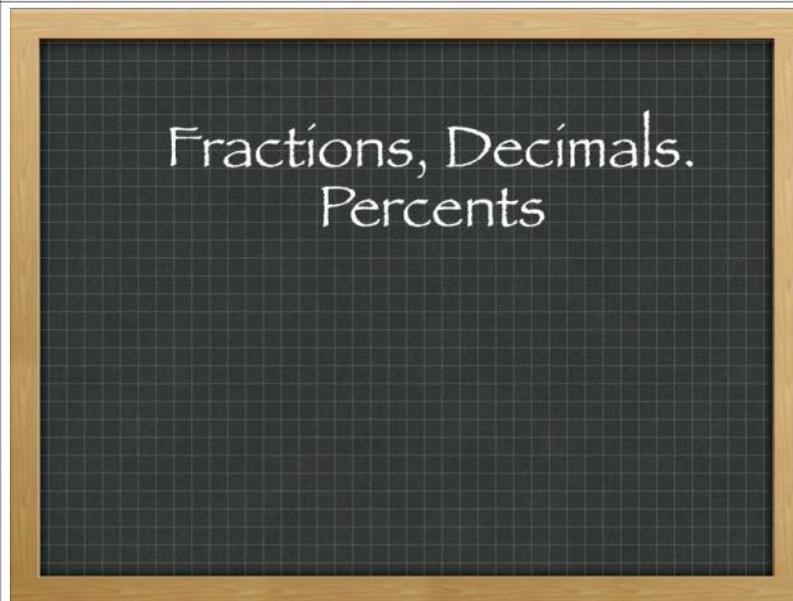
Slides	Notes
	In this lesson, you will learn to convert between common fractions, decimals, and percents.

	It takes ten dimes to equal the value of a dollar. If you have just a single dime, you have one tenth of a dollar.
	You would write the fraction as 1 over 10. That is one tenth.
	Since tenths is actually a position in place value, you will have a 1 in the tenths place for the decimal form. Don't forget the leading zero on those amounts less than 1.
	To get percent, just move the decimal point two places over and add the percent sign at the end. This is ten percent.
	Now we have 5 dimes. We are half way to having a dollar. As a fraction, you could write that as five tenths or you could even simplify it to one half.
	For the decimal form, you place the 5 in the tenths place.
	Just as you did for the last one, to get the percent form, just move the decimal over two places and add the percent symbol.
	You are probably getting the hang of in by now. See if you can predict the answers for the fraction decimal and percent formats. Click next to see if you were correct.

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fraction $\frac{1}{4}$ decimal 0.25 percent 25%	What if you don't have something divided up by tenths though. It takes 4 quarters to make a dollar. If you had just one of them, you would have one fourth of a dollar. To help you with the decimal form, just think of how you would write 25 cents when you are writing it with the dollar sign. Just move the decimal point over two places to get the percent.
fraction $\frac{3}{4}$ decimal 0.75 percent 75%	Predict what the fraction, decimal, and percent would look like for 3 quarters of a dollar.
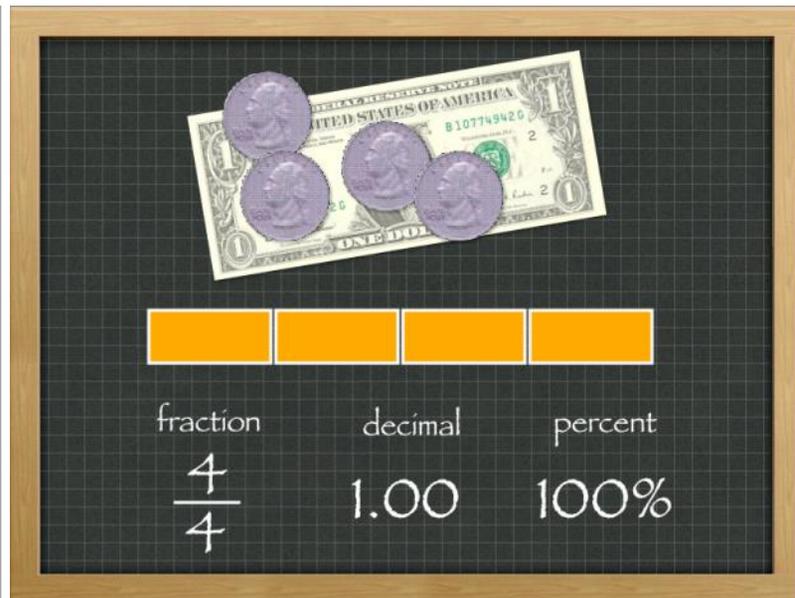
When you have enough quarters to make a full dollar, you write it as four fourths.

In the decimal form, you know have 1 whole instead of a part of a number.

In percent that is 100%.

fraction	decimal	percent
$\dfrac{4}{4}$	1.00	100%
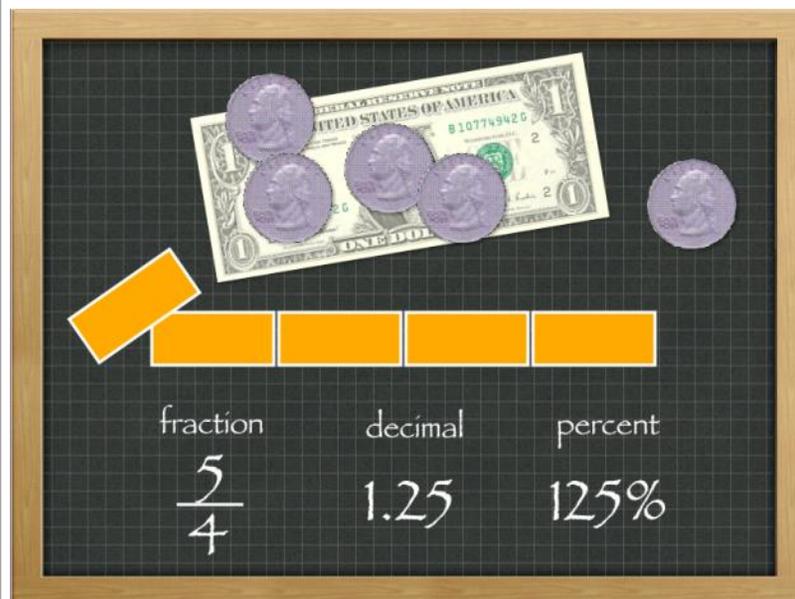
You can have more than a whole too. If you had an extra quarter beyond the 4 quarters, you have a whole dollar and twenty-five cents.

You write that as 5/4th in the fractional form because you have 5 quarters and it only took 4 to make a whole.

In the decimal form, you will have a whole and twenty-five hundredths more.

In the percent form, you would have 125%.

fraction	decimal	percent
$\dfrac{5}{4}$	1.25	125%

What about the not so common ones?

Percent means out of 100, you have hundredth pace in decinmal form, and you can have 100 in the denominator...

$\frac{2}{5}$ of 100 $\frac{2 \times 100}{5}$

fraction   decimal   percent

$\frac{2}{5}$ 0.40   40%

What about the not so common ones such as 2/5 written in decimal or percent form?

Well, remember that percent means out of 100., you have hundredth's place in decimal form, and you can have 100 in the denominator. So you can do things such as find what is 2/5ths of 100. That would be solved by multiplying the numerators. Remember that a whole number can be written over 1. Then divide the total by the denominator. That gives us 0.40. That is a decimal. To get percent, just move the decimal point over two places and add the percent symbol.

Here is an important note. When you are doing math using percents, you can never actually do math operations with it in percent form. You have to get it either to the decimal or the fractional form before you can add, subtract, multiply, or divide it. At the end, when you get your answer, if you need it in the percent form, you change it to it at that last step of reporting your answer.

Now it is your turn to see if you can remember how to do these. If you get stuck, review the lesson.

Fraction Review

Fraction	Decimal	Percent
1/4		25%
1/2	0.50	
	0.75	75%
4/4 = 1		100%
1 and 1/4	1.25	

Congratulations!

You have completed this topic.