

**Lesson
6.2d**
Fractions and Decimals

Objectives <ul style="list-style-type: none"> Express a 2-place decimal as a fraction in its simplest form. Express a fraction with a denominator that is a factor of 100 as a decimal. 	California Standards NS 1.6: Write tenths and hundredths in decimal and fraction notations and know the fraction and decimal equivalents for halves and fourths.
Vocabulary/Phrases Numerator Simplest form Denominator Factor	

Teaching Strategies		
Express 2- place decimals as fractions in simplest form	<p>Write 1.24 on the board and have students convert this to a fraction with 100 as the <u>denominator</u>. Ask them how this fraction can be simplified. Tell them that it can be done in either one or two steps. Lead students to see that it can be done by dividing both <u>numerator</u> and denominator by 2 and then 2 again, or in one step, by dividing both by 4.</p> <p>Write 0.75 on the board and ask students to write it as a fraction in its <u>simplest form</u>. Tell them that thinking of decimals as money will make help to convert them into fractions. For example, if we remember that 3 quarters is 75 cents, we can use that to know that</p> $0.75 = \frac{3}{4} .$	$1.24 = 1 \frac{24}{100}$ $= 1 \frac{12}{50} = 1 \frac{6}{25}$ $0.75 = \frac{75}{100} = \frac{3}{4}$
	<p>Write a decimal on the board. Ask students how to convert this as a fraction in its simplest form. Tell them to set the denominator as 100. Lead students to see that since the <u>factors</u> of 100 are 2, 4, 5, 10, 20, 25 and 50, all 2-place decimals rewritten as fractions in their simplest form will have one of these in the denominator.</p> <p>Note: Show students that a quick way of finding the equivalent fraction is to divide the numerator by 5 or 2 successively. If it cannot be divided by 5 or 2, it cannot be simplified any further.</p>	$0.25 = \frac{1}{4}$
	<p>Write some common decimal/fraction equivalents. Encourage students to memorize them. Point out that if they know $0.20 = \frac{1}{5}$ then 0.40, which is 2×0.20, is also $2 \times \frac{1}{5}$, or $\frac{2}{5}$.</p>	$0.20 = \frac{1}{5}$ $0.50 = \frac{1}{2}$