Name: _____ Date: _____

4.2 Fractions, Decimals, and Percents

***MathLinks 8,* pages 130–137**

Key Ideas Review

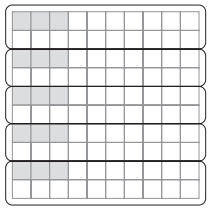
Choose from the following terms to complete each statement.

decimals division fractions hundred grid hundred grids multiplication

1. You can convert fractions to decimals using a _____

_____ or _____.

For example:

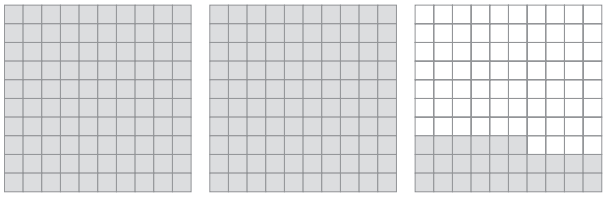
$\frac{3}{20}$ =  or _____

$\frac{3}{20} = 3 \div 20 =$ _____

2. You can convert decimals to percents using _____

_____ or _____.

For example:

2.26 =  = _____

$2.26 = 2.26 \times 100\% =$ _____

3. Percents can be written as _____ and as _____.

Practise and Apply

4. Rewrite each fraction as a decimal and a percent. Show your thinking.

a) $\frac{3}{4}$ = _____ or _____

b) $\frac{21}{300}$ = _____ or _____

c) $\frac{9}{5}$ = _____ or _____

d) $\frac{1}{8}$ = _____ or _____

e) $\frac{3}{80}$ = _____ or _____

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5. Convert each decimal to a percent and a fraction in lowest terms. Show your thinking.

a) 4.25

b) 0.845

c) 0.0062

6. Convert each percent to a decimal, then a fraction. Show your thinking.

a) 735%

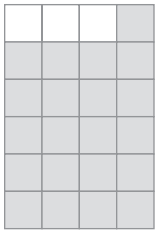
b) $16\frac{1}{2}\%$

c) 0.6%

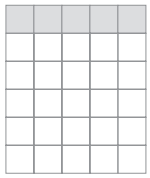
7. Tristan charges a flat rate of $16 for each small lawn that he mows. He decided to increase his rate to $20. What is the new rate as a percent of the old rate? Show your thinking.

8. If one completely shaded grid represents one whole, express the shaded portion of each diagram as a fraction, a decimal, and a percent.

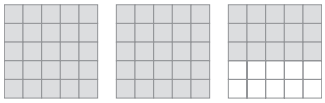
a)



b)



c)



9. About 0.038% of Earth's atmosphere is carbon dioxide. Write this amount as a decimal and a fraction.

10. Kenji calculated that he needed to eat about 2000 calories per day based on his weight, age, and activity level. For lunch, he ate a hamburger that had 538 calories. What percent of Kenji's daily calorie needs does this hamburger represent? Show your thinking.