GRADE 10 ESSENTIAL
FRACTIONS LESSON 6
RENAMING FRACTIONS

Name:_____
Date: _____

LESSON 6: RENAMING FRACTIONS (EQUIVALENT FRACTIONS)

$1 \cdot 5 = 5$

$\dfrac{5}{5}$

$\dfrac{1}{2} = \dfrac{}{10}$

$10 \div 2 = 5$

$\dfrac{1}{2} = \dfrac{\blacksquare}{10}$

$4 = \dfrac{\blacksquare}{3}$

$4 = \dfrac{4}{1}$

$\dfrac{1}{2} = \dfrac{1 \times 5}{2 \times 5}$ ← Multiply the numerator and the → $= \dfrac{4 \times 3}{1 \times 3}$
denominator by the same number.

Name the whole
number as a fraction.

$= \dfrac{5}{10}$ Use 5 so the new
denominator is 10.

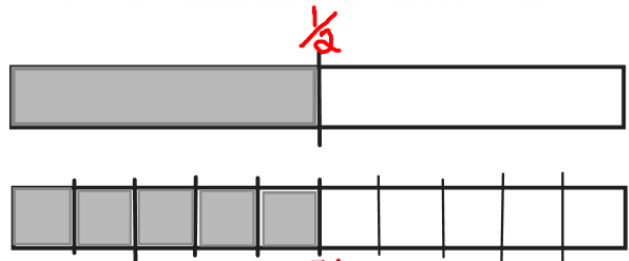$= \dfrac{12}{3}$ Use 3 so the new
denominator is 3.

Renaming is also known as finding equivalent fractions.
Renaming is really just proportions *again*! One piece of a two-piece chocolate bar is the same amount as five pieces of a ten-piece chocolate bar.
You can often use proportions to make an equivalent fraction.

½

5⁄10

$\dfrac{1}{2} = \dfrac{x}{10}$; $1 \cdot 10 = x$; $x = 5$

therefore $\dfrac{1}{2} = \dfrac{5}{10}$

A whole number can be expressed as a fraction too if necessary! You could say that three whole pizzas was three pieces of a one-piece pizza

$3 = \dfrac{3}{1}$ $4 = \dfrac{4}{1}$

Rename:

1. $\dfrac{1}{2} = \dfrac{}{8}$ $\dfrac{2}{3} = \dfrac{}{6}$ $\dfrac{4}{5} = \dfrac{}{10}$

2. $3 = \dfrac{}{4}$ $4 = \dfrac{}{6}$ $3 = \dfrac{}{10}$

3. $\dfrac{1}{2} = \dfrac{}{16}$ $10 = \dfrac{}{8}$ $\dfrac{5}{8} = \dfrac{}{16}$

4. You invent three of your own!

5. Try these ones too!

a. $\dfrac{3}{5} = \dfrac{}{10}$ b. $\dfrac{3}{5} = \dfrac{}{100}$ c. $\dfrac{3}{5} = \dfrac{}{1000}$

d. $\dfrac{1}{6} = \dfrac{}{18}$ e. $\dfrac{7}{10} = \dfrac{}{100}$ f. $\dfrac{75}{100} = \dfrac{}{4}$

g. $\dfrac{4}{5} = \dfrac{}{10}$ h. $\dfrac{4}{5} = \dfrac{}{100}$ j. $\dfrac{4}{5} = \dfrac{}{1000}$

k. $\dfrac{4}{7} = \dfrac{}{70}$ m. $\dfrac{3}{8} = \dfrac{}{1000}$ n. $\dfrac{1}{4} = \dfrac{}{100}$

Did you notice that anything with some multiple of 10 in the denominator can really be expressed as a decimal? ie: 25/100 is identically 0.25.

Go back above and write the equivalent decimal for those equivalent fractions that have multiples of 10 in the denominator.