

2/2/10

Objective:



TSWBAT test
ratios and complete
proportions.

Vocabulary

Proportion: an equation stating that two ratios are equal.

Recognizing Proportions

Do each pair form a proportion?

$$\frac{9}{10}, \frac{27}{30}$$

$$\frac{72}{81}, \frac{7}{9}$$

Compare to see if they are equal.

$\frac{9}{10}$ $\xrightarrow{\times 3}$ $\frac{27}{30}$ proportional

$\frac{9}{10}$ $\xrightarrow{\times 3}$ $\frac{27}{30}$

$\frac{72}{81}$ $\xrightarrow{\div 9}$ $\frac{8}{9}$ Not proportional

$\frac{72}{81}$ $\xrightarrow{\div 9}$ $\frac{7}{9}$ proportional

Try these:

$$\frac{2}{5}, \frac{8}{20}$$

$$\frac{12}{52}, \frac{4}{14}$$

$$\frac{8}{5}, \frac{36}{20}$$

$\frac{2}{5}$ $\frac{8}{20} = \frac{2}{5}$
proportional

$$\frac{4}{10}, \frac{6}{15}$$

Completing a Proportion

A hybrid car can travel 260 miles using 5 gallons of gas.
How many miles can the car travel using 8 gallons of gas?

1. write a proportion that compares miles driven to gallons of gas used.

$$\frac{260}{5} = \frac{\quad}{8}$$

2. find equivalent fractions with a denominator 1.

$$\begin{array}{c} \div 5 \\ \frac{260}{5} = \frac{52}{1} \\ \div 5 \end{array}$$

3. then find the proportions with 8.

$$\begin{array}{c} \times 8 \\ \frac{52}{1} = \frac{416}{8} \\ \times 8 \end{array}$$

Try these:

$$\frac{12}{4} = \frac{\quad}{5}$$

$$\frac{3}{9} = \frac{2}{\quad}$$

$$\frac{12}{4} = \frac{3}{1} = \frac{\boxed{15}}{5}$$

Practice:

Homework

Reteach



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