

14.4

Solving Proportions

Today's Learning Goals:

- I can solve proportions using multiplication or the Cross Products Property.
- I can use a point on a graph to write and solve proportions.

Do Now

1) Write a proportion to find how many points a student needs to score on the test to get the given score.

a) test worth 80 points; test score of 80%

b) test worth 150 points; test score of 96%

Review

Solve the missing variable in the proportion mentally.

2) $\frac{5}{8} = \frac{20}{d}$

3) $\frac{7}{z} = \frac{14}{10}$

4) $\frac{21}{24} = \frac{x}{8}$

Review

Solve the missing variable.

$$2) \frac{5}{8} = \frac{20}{d}$$

$$3) \frac{7}{z} = \frac{14}{10}$$

$$4) \frac{21}{24} = \frac{x}{8}$$

What are Proportions?

Proportions are EQUAL RATIOS

$$\frac{3}{5} = \frac{6}{10}$$

Cross Products

$$5 \bullet 6 = 10 \bullet 3$$

Using Cross Products to Solve Proportions

$$1) \frac{w}{6} = \frac{6}{9}$$

Using Cross Products to Solve Proportions

$$2) \frac{12}{10} = \frac{a}{15}$$

Using Cross Products to Solve Proportions

$$3) \frac{9}{y} = \frac{3}{17}$$

Using Cross Products to Solve Proportions

$$4) \frac{x}{8} = \frac{7}{10}$$

Practice

$$5) \frac{x}{25} = \frac{6}{10}$$

Practice

$$6) \frac{2}{9} = \frac{3}{d}$$

Practice

$$7) \frac{\mathbf{b}}{10} = \frac{3}{4}$$

Practice

$$8) \frac{\mathbf{c}}{15} = \frac{5}{6}$$