

6.6 Proportions and Missing Values

Chapter 6: Ratios, Rates, and Proportional Reasoning

Name: _____

Date: _____

Class/Period: _____

Problem 6.81 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{2}{3} = \frac{x}{15}$.

Problem 6.84 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{19}{11} = \frac{x}{88}$.

Problem 6.82 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{15}{x} = \frac{5}{12}$.

Problem 6.85 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{3}{7} = \frac{x}{42}$.

Problem 6.83 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{x}{32} = \frac{7}{8}$.

Problem 6.86 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{13}{9} = \frac{a}{45}$.

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Problem 6.87 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{w}{35} = \frac{21}{15}$.

Problem 6.90 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{x-4}{9} = \frac{2}{3}$.

Problem 6.88 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{m}{21} = \frac{9}{4}$.

Problem 6.91 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{7}{x+1} = \frac{1}{2}$.

Problem 6.89 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{12}{s} = \frac{5}{8}$.

Problem 6.92 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Does $x = 20$ satisfy $\frac{x}{35} = \frac{4}{7}$?

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Problem 6.93 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Write and solve a proportion in which the missing value is a denominator and the solution is 18.

Problem 6.95 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{2x+1}{15} = \frac{3}{5}$ and check the result.

Problem 6.94 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

A student scales $\frac{3}{x} = \frac{8}{20}$ by comparing 3 with 20. Explain why those values do not correspond, then solve by matching the numerator pair.

Problem 6.96 Directions:

For each proportion, identify corresponding quantities and solve with a scale factor or unit rate. State the factor or rate.

Solve $\frac{9}{14} = \frac{x}{42}$ by scaling, then explain why reducing both completed ratios gives a valid check.