Answer Key · Lesson 7.3: Proportions

School Launch · Pre-Algebra · Unit 7 · Worksheet A · for the parent

Key

1. $x = 12$

Solve the proportion $\frac{2}{3} = \frac{8}{x}$.

2. $x = 30$

Solve the proportion $\frac{8}{5} = \frac{48}{x}$.

3. $x = 16$

Solve the proportion $\frac{3}{2} = \frac{24}{x}$.

4. $x = 10$

1. Expand: $\frac{x}{12} = \frac{5}{6}$
2. Collect terms: $\frac{x}{12} = \frac{5}{6}$
3. Divide by $\frac{1}{12}$: $x = 10$

Solve the proportion $\frac{x}{12} = \frac{5}{6}$.

5. $x = 12$

1. Expand: $\frac{x}{10} = \frac{6}{5}$
2. Collect terms: $\frac{x}{10} = \frac{6}{5}$
3. Divide by $\frac{1}{10}$: $x = 12$

Solve the proportion $\frac{x}{10} = \frac{6}{5}$.

6. $x = 4$

1. Expand: $\frac{x}{18} = \frac{2}{9}$
2. Collect terms: $\frac{x}{18} = \frac{2}{9}$
3. Divide by $\frac{1}{18}$: $x = 4$

Solve the proportion $\frac{x}{18} = \frac{2}{9}$.

7. $x = 14$

1. Expand: $\frac{x}{12} = \frac{7}{6}$
2. Collect terms: $\frac{x}{12} = \frac{7}{6}$
3. Divide by $\frac{1}{12}$: $x = 14$

Solve the proportion $\frac{x}{12} = \frac{7}{6}$.

8. $x = \frac{11}{2}$

1. Expand: $\frac{x}{7} + \frac{11}{7} = \frac{33}{14}$
2. Collect terms: $\frac{x}{7} = \frac{11}{14}$
3. Divide by $\frac{1}{7}$: $x = \frac{11}{2}$

Solve the proportion $\frac{x+11}{7} = \frac{33}{14}$.

9. $x = \frac{9}{2}$

1. Expand: $\frac{x}{6} + \frac{3}{2} = \frac{9}{4}$
2. Collect terms: $\frac{x}{6} = \frac{3}{4}$
3. Divide by $\frac{1}{6}$: $x = \frac{9}{2}$

Solve the proportion $\frac{x+9}{6} = \frac{27}{12}$.

10. $x = 5$

1. Expand: $\frac{x}{8} + \frac{5}{4} = \frac{15}{8}$
2. Collect terms: $\frac{x}{8} = \frac{5}{8}$
3. Divide by $\frac{1}{8}$: $x = 5$

Solve the proportion $\frac{x+10}{8} = \frac{30}{16}$.