

Cross Multiplying to Find an Unknown

PRO 1

Instructions: For each of these proportions (without units), use the cross-multiplying procedure you learned in the video to solve for the unknown number 'n'.

1 $\frac{n}{9} = \frac{2}{3}$

$$n \times 3 = 9 \times 2$$

$$\frac{n \times 3}{3} = \frac{18}{3}$$

$$n = 6$$

2 $\frac{5}{n} = \frac{2}{8}$

$$5 \times 8 = n \times 2$$

$$\frac{40}{2} = \frac{n \times 8}{8}$$

$$n = 20$$

3 $\frac{n}{4} = \frac{12}{6}$

$$n \times 6 = 4 \times 12$$

$$\frac{n \times 6}{6} = \frac{48}{6}$$

$$n = 8$$

4 $\frac{2}{9} = \frac{n}{45}$

$$2 \times 45 = 9 \times n$$

$$\frac{90}{9} = \frac{9 \times n}{9}$$

$$n = 10$$

5 $\frac{3}{8} = \frac{n}{32}$

$$3 \times 32 = 8 \times n$$

$$\frac{96}{8} = \frac{8 \times n}{8}$$

$$n = 12$$

6 $\frac{7}{3} = \frac{21}{n}$

$$7 \times n = 3 \times 21$$

$$\frac{7 \times n}{7} = \frac{63}{7}$$

$$n = 9$$

7 $\frac{7}{3} = \frac{35}{n}$

$$7 \times n = 3 \times 35$$

$$\frac{7 \times n}{7} = \frac{105}{7}$$

$$n = 15$$

8 $\frac{n}{6} = \frac{5}{30}$

$$n \times 30 = 6 \times 5$$

$$\frac{n \times 30}{30} = \frac{30}{30}$$

$$n = 1$$

Cross Multiplying to Find an Unknown - Set 2

PRO 2

Instructions: For each of these proportions (without units), use the cross-multiplying procedure you learned in the video to solve for the unknown number 'n'. You can use a calculator for this set.

1 $\frac{n}{7} = \frac{2}{5}$

$$n \times 5 = 7 \times 2$$

$$\frac{n \times \cancel{5}}{\cancel{5}} = \frac{14}{5}$$

$$n = 2.8$$

2 $\frac{8}{n} = \frac{15}{6}$

$$8 \times 6 = n \times 15$$

$$\frac{48}{15} = \frac{n \times \cancel{15}}{\cancel{15}}$$

$$n = 3.2$$

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

$$n \times 10 = 5 \times 3$$

$$\frac{n \times \cancel{10}}{\cancel{10}} = \frac{15}{10}$$

$$n = 1.5$$

4 $\frac{7}{12} = \frac{n}{6}$

$$7 \times 6 = 12 \times n$$

$$\frac{42}{12} = \frac{\cancel{12} \times n}{\cancel{12}}$$

$$n = 3.5$$

5 $\frac{3}{5} = \frac{n}{32}$

$$3 \times 32 = 5 \times n$$

$$\frac{96}{5} = \frac{5 \times n}{5}$$

$$n = 19.2$$

6 $\frac{4}{3} = \frac{51}{n}$

$$4 \times n = 3 \times 51$$

$$\frac{4 \times n}{4} = \frac{153}{4}$$

$$n = 38.25$$

7 $\frac{5}{7} = \frac{1.2}{n}$

$$5 \times n = 7 \times 1.2$$

$$\frac{5 \times n}{5} = \frac{8.4}{5}$$

$$n = 1.68$$

8 $\frac{n}{10} = \frac{3}{2.5}$

$$n \times 2.5 = 10 \times 3$$

$$\frac{n \times \cancel{2.5}}{\cancel{2.5}} = \frac{30}{2.5}$$

$$n = 12$$