

Proportions—Explanation & Practice

PRACTICE

Cross multiply to see if each pair of fractions forms a true proportion.
Circle **Yes** if the cross products are equal. Circle **No** if they are not equal.

1. $\frac{5}{6} = \frac{32}{36}$ **Yes** **No** $\frac{3}{2} = \frac{18}{12}$ **Yes** **No** $\frac{7}{8} = \frac{39}{48}$ **Yes** **No**

2. $\frac{4}{3} = \frac{28}{21}$ **Yes** **No** $\frac{2}{5} = \frac{14}{35}$ **Yes** **No** $\frac{13}{10} = \frac{37}{30}$ **Yes** **No**

Write the following proportions as two equal fractions.

3. Three is to two as nine is to six. Four is to one as twenty is to five.
4. $4:16 = 1:4$ $5:2 = 25:10$ $x:3 = 24:36$ $3:4 = 21n$

Find the missing term in each proportion.

5. $\frac{x}{3} = \frac{6}{9}$ $\frac{8}{5} = \frac{16}{x}$ $\frac{8}{y} = \frac{20}{15}$ $\frac{6}{x} = \frac{18}{12}$

6. $\frac{12}{8} = \frac{15}{x}$ $\frac{15}{25} = \frac{y}{5}$ $\frac{h}{9} = \frac{18}{27}$ $\frac{3}{16} = \frac{p}{64}$

7. $8:12 = 14:n$ $6:8 = x:4$ $5:8 = y:32$ $10:6 = 5:h$

8. $\underline{\hspace{1cm}}:24 = 5:6$ $4:\underline{\hspace{1cm}} = 16:20$ $3:16 = 9:\underline{\hspace{1cm}}$ $3:2 = \underline{\hspace{1cm}}:28$

Answer Key

Proportions – Practice

1. No
Yes
No

2. Yes
Yes
No

3. $\frac{3}{2} = \frac{9}{6}$
 $\frac{4}{1} = \frac{20}{5}$

4. $\frac{4}{16} = \frac{1}{4}$

$$\frac{5}{2} = \frac{20}{10}$$

$$\frac{x}{3} = \frac{24}{36}$$

$$\frac{3}{4} = \frac{21}{n}$$

5. $x = 2$
 $x = 10$
 $y = 6$
 $x = 4$

6. $x = 10$
 $y = 3$
 $h = 6$
 $p = 12$

7. $n = 21$
 $x = 3$
 $y = 20$
 $h = 3$

8. 20
5
48
42