

MarcyN Bonifacio HW#6

State if each pair of ratios forms a proportion. Show all work to receive full credit

1)  $\frac{16}{30} = \frac{4(6)}{5(6)}$      $\frac{16}{30} = \frac{24}{30}$     A) Yes    B) No

2)  $\frac{5(2)}{3(2)} = \frac{10}{6}$      $\frac{10}{6} = \frac{10}{6}$     Yes

3)  $\frac{15}{30} = \frac{5(5)}{6(5)}$      $\frac{15}{30} = \frac{25}{30}$     No

4)  $\frac{3(3)}{4(3)} = \frac{6}{12}$      $\frac{9}{12} = \frac{6}{12}$     No

5)  $\frac{25}{24} = \frac{5(4)}{6(4)} = \frac{25}{24} = \frac{20}{24}$     No

6)  $\frac{12}{20} = \frac{6(4)}{5(4)} = \frac{12}{20} = \frac{24}{20}$     No

7)  $\frac{6(6)}{4(6)} = \frac{36}{24}$      $\frac{36}{24} = \frac{36}{24}$     Yes

~~8)  $\frac{6}{4} = \frac{30}{20}$~~

8)  $\frac{6}{4 \times 5} = \frac{30}{20}$      $\frac{30}{20} = \frac{30}{20}$  YES

9)  $\frac{46}{66} = \frac{32}{36}$      $\frac{24}{36} = \frac{32}{36}$  NO

10)  $\frac{46}{56} = \frac{20}{30}$      $\frac{24}{30} = \frac{20}{30}$  NO

Solve each proportion. Show all work to receive Full credit

11)  $\frac{3}{6} = \frac{5}{x}$      $3x = 6 \times 5$   
 $\frac{3x}{3} = \frac{30}{3}$   
 $x = 10$

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

12)  $\frac{6}{x} = \frac{4}{8}$      $6 \times 8 = 4x$      $\frac{6}{12} = \frac{4}{8}$   
 $\frac{48}{4} = \frac{4x}{4}$   
 $x = 12$

$$\textcircled{13} \frac{5}{10} = \frac{7}{x}$$

$$5x = 7 \times 10$$
$$\frac{5x}{5} = \frac{70}{5}$$

$$\boxed{\frac{5}{10} = \frac{7}{14}}$$

$$\boxed{x=14}$$

$$\textcircled{14} \frac{k}{15} = \frac{2}{6}$$

$$6k = 2 \times 15$$
$$\frac{6k}{6} = \frac{30}{6}$$

$$\boxed{\frac{5}{15} = \frac{2}{6}}$$

$$\boxed{k=5}$$

$$\textcircled{15} \frac{3}{x} = \frac{2}{6}$$

$$3 \times 6 = 2x$$
$$\frac{18}{2} = \frac{2x}{2}$$

$$\boxed{\frac{3}{9} = \frac{2}{6}}$$

$$\boxed{9=x}$$

$$\textcircled{16} \frac{8}{4} = \frac{6}{N}$$

$$8N = 6 \times 4$$
$$\frac{8N}{8} = \frac{24}{8}$$

$$\boxed{\frac{8}{4} = \frac{6}{3}}$$

$$\boxed{N=3}$$

$$\textcircled{17} \frac{21}{3} = \frac{7}{k}$$

$$21k = 7 \times 3$$
$$\frac{21k}{21} = \frac{21}{21}$$

$$\boxed{\frac{21}{3} = \frac{7}{1}}$$

$$\boxed{k=1}$$

