

PAINTING PROPORTIONS



Write the cross-products.

1. $\frac{14}{28} = \frac{1}{2}$ $14 \times 2 = \underline{\hspace{2cm}}$
 $28 \times 1 = \underline{\hspace{2cm}}$
 $28 \times 4 \neq 14 \times 2$
2. $\frac{1}{2} = \frac{8}{12}$ $2 \times 8 = \underline{\hspace{2cm}}$
 $1 \times 12 = \underline{\hspace{2cm}}$
 $1 \times 12 \neq 2 \times 8$



Write an equation that shows that the cross-products are equal.

3. $\frac{y}{5} = \frac{4}{10}$ _____ 4. $\frac{24}{18} = \frac{4}{n}$ _____



Write the cross-products.

5. $\frac{4}{1} = \frac{8}{2}$ 6. $\frac{4}{5} = \frac{12}{15}$ 7. $\frac{1}{6} = \frac{y}{18}$ 8. $\frac{8}{x} = \frac{12}{9}$



Tell whether the ratios make a proportion. Write **yes** or **no**.

9. $\frac{4}{7}; \frac{12}{21}$ _____ 10. 1:6; 4:24 _____ 11. $\frac{6}{7}; \frac{18}{28}$ _____ 12. 9:6; 12:8 _____

Real World Connection

Solve.

13. In a painting, the ratio of tall mountains to short mountains is 5:4. In the same painting, the ratio of tall mountains to trees is 10:3. What is the ratio of short mountains to trees?



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Answer Key

1. 28; 28; yes
2. 16; 12; no
3. $10y = 5 \times 4$
4. $24n = 18 \times 4$
5. $4 \times 2 = 1 \times 8$
6. $4 \times 15 = 5 \times 12$
7. $1 \times 18 = 6y$
8. $8 \times 9 = 12x$
9. yes
10. yes
11. no
12. yes
13. 8:3

