

Cumulative Review

Proportion			Solve	Multiplied numerators by...
1. $\frac{6 \text{ penguins}}{9 \text{ seals}} = \frac{x \text{ penguins}}{12 \text{ seals}}$	Numerators			
	Denominators			
	Common denominator			
2. $\frac{x \text{ spiders}}{3 \text{ ants}} = \frac{12 \text{ spiders}}{9 \text{ ants}}$	Numerators			
	Denominators			
	Common denominator			
3. $\frac{x}{8} = \frac{3}{12}$	Numerators			
	Denominators			
	Common denominator			

Cumulative Review (cont.)


4.	Ratios	Common denominator	Ratio 1	Equivalent ratio 1	Ratio 2	Equivalent ratio 2	Are the ratios proportional?
	$\frac{6}{5}$ and $\frac{7}{6}$						

Practice

Determine whether each pair of ratios is proportional by using cross products.


1. $\frac{6}{9}$ $\frac{9}{12}$

2. $\frac{2}{4}$ $\frac{3}{6}$

 Check with a partner and discuss reasoning.


3. $\frac{4}{6}$ $\frac{6}{9}$

4. $\frac{5}{7}$ $\frac{4}{9}$

 Check with a partner and discuss reasoning.

5. $\frac{2}{10}$ $\frac{3}{15}$

6. $\frac{6}{8}$ $\frac{9}{12}$

 Check with a partner and discuss reasoning.

7. $\frac{2}{3}$ $\frac{3}{5}$

8. $\frac{1}{4}$ $\frac{3}{10}$

 Check with a partner and discuss reasoning.

Name: _____

Independent Practice

Determine whether each pair of ratios is proportional by using cross products.

1. $\frac{5}{6}$ $\frac{7}{8}$

2. $\frac{3}{7}$ $\frac{4}{12}$

3. $\frac{4}{5}$ $\frac{2}{3}$

4. $\frac{2}{6}$ $\frac{3}{9}$

5. $\frac{3}{11}$ $\frac{2}{10}$

6. $\frac{6}{15}$ $\frac{4}{10}$

7. $\frac{3}{4}$ $\frac{9}{12}$

8. $\frac{3}{9}$ $\frac{4}{7}$



Answer Key: Cumulative Review

Proportion			Solve	Multiplied numerators by...
1.	Numerators	6 and x	$\frac{6}{9} = \frac{x}{12}$	9 and 12
$\frac{6 \text{ penguins}}{9 \text{ seals}} = \frac{x \text{ penguins}}{12 \text{ seals}}$	Denominators	9 and 12	$\frac{6 \cdot 12}{9 \cdot 12} = \frac{x \cdot 9}{12 \cdot 9}$	
	Common denominator	108	$\frac{72}{108} = \frac{9x}{108}$ $72 = 9x$ $x = 8 \text{ penguins}$	
2.	Numerators	x and 12	$\frac{x}{3} = \frac{12}{9}$	3 and 9
$\frac{x \text{ spiders}}{3 \text{ ants}} = \frac{12 \text{ spiders}}{9 \text{ ants}}$	Denominators	3 and 9	$\frac{x \cdot 9}{3 \cdot 9} = \frac{12 \cdot 3}{9 \cdot 3}$	
	Common denominator	27	$\frac{9x}{27} = \frac{36}{27}$ $9x = 36$ $x = 4 \text{ spiders}$	
3.	Numerators	x and 3	$\frac{x}{8} = \frac{3}{12}$	8 and 12
$\frac{x}{8} = \frac{3}{12}$	Denominators	8 and 12	$\frac{x \cdot 12}{8 \cdot 12} = \frac{3 \cdot 8}{12 \cdot 8}$	
	Common denominator	96	$\frac{12x}{96} = \frac{24}{96}$ $12x = 24$ $x = 2$	

Answer Key: Cumulative Review (cont.)

4.

Ratios	Common denominator	Ratio 1	Equivalent ratio 1	Ratio 2	Equivalent ratio 2	Are the ratios proportional?
$\frac{6}{5}$ and $\frac{7}{6}$	$5 \times 6 = 30$	$\frac{6}{5} = \frac{x}{30}$	$\frac{36}{30}$	$\frac{7}{6} = \frac{x}{30}$	$\frac{35}{30}$	no



Answer Key: Practice


Determine whether each pair of ratios is proportional by using cross products.

1. $\frac{6}{9} \quad \frac{9}{12}$

$72 \neq 81$
not proportional

2. $\frac{2}{4} \quad \frac{3}{6}$

$12 = 12$
proportional


 Check with a partner and discuss reasoning.

3. $\frac{4}{6} \quad \frac{6}{9}$

$36 = 36$
proportional

4. $\frac{5}{7} \quad \frac{4}{9}$

$45 \neq 28$
not proportional

 Check with a partner and discuss reasoning.

5. $\frac{2}{10} \quad \frac{3}{15}$

$30 = 30$
proportional

6. $\frac{6}{8} \quad \frac{9}{12}$

$72 = 72$
proportional

 Check with a partner and discuss reasoning.

7. $\frac{2}{3} \quad \frac{3}{5}$

$10 \neq 9$
not proportional

8. $\frac{1}{4} \quad \frac{3}{10}$

$10 \neq 12$
not proportional

 Check with a partner and discuss reasoning.



Answer Key: Independent Practice

Determine whether each pair of ratios is proportional by using cross products.

1. $\frac{5}{6}$ $\frac{7}{8}$

$40 \neq 42$
not proportional

2. $\frac{3}{7}$ $\frac{4}{12}$

$36 \neq 28$
not proportional

3. $\frac{4}{5}$ $\frac{2}{3}$

$12 \neq 10$
not proportional

4. $\frac{2}{6}$ $\frac{3}{9}$

$18 = 18$
proportional

5. $\frac{3}{11}$ $\frac{2}{10}$

$30 \neq 22$
not proportional

6. $\frac{6}{15}$ $\frac{4}{10}$

$60 = 60$
proportional

7. $\frac{3}{4}$ $\frac{9}{12}$

$36 = 36$
proportional

8. $\frac{3}{9}$ $\frac{4}{7}$

$21 \neq 36$
not proportional