

Lesson 4.2 Testing Proportional Relationships

Cross-multiply to check each proportion. Circle the ratios that are true.

a**b****c**

1. $\frac{4}{3} = \frac{6}{4}$ _____

$\frac{1}{4} = \frac{3}{12}$ _____

$\frac{4}{5} = \frac{16}{20}$ _____

2. $\frac{8}{12} = \frac{2}{3}$ _____

$\frac{30}{25} = \frac{6}{5}$ _____

$\frac{7}{3} = \frac{5}{2}$ _____

3. $\frac{9}{1} = \frac{18}{3}$ _____

$\frac{15}{4} = \frac{45}{12}$ _____

$\frac{2}{5} = \frac{4}{12}$ _____

4. $\frac{7}{4} = \frac{21}{12}$ _____

$\frac{9}{2} = \frac{18}{6}$ _____

$\frac{5}{6} = \frac{15}{18}$ _____

5. $\frac{5}{9} = \frac{10}{19}$ _____

$\frac{4}{3} = \frac{16}{12}$ _____

$\frac{7}{4} = \frac{14}{10}$ _____

6. $\frac{12}{8} = \frac{18}{12}$ _____

$\frac{14}{7} = \frac{6}{3}$ _____

$\frac{1}{5} = \frac{3}{16}$ _____

7. $\frac{2}{1} = \frac{6}{2}$ _____

$\frac{8}{6} = \frac{12}{8}$ _____

$\frac{5}{4} = \frac{10}{8}$ _____

8. $\frac{2}{5} = \frac{6}{15}$ _____

$\frac{14}{6} = \frac{21}{8}$ _____

$\frac{4}{5} = \frac{10}{16}$ _____

9. $\frac{3}{5} = \frac{9}{20}$ _____

$\frac{1}{3} = \frac{4}{12}$ _____

$\frac{9}{6} = \frac{12}{8}$ _____

10. $\frac{7}{5} = \frac{28}{20}$ _____

$\frac{5}{4} = \frac{25}{16}$ _____

$\frac{10}{13} = \frac{30}{26}$ _____

11. $\frac{4}{5} = \frac{20}{22}$ _____

$\frac{1}{5} = \frac{3}{18}$ _____

$\frac{6}{7} = \frac{78}{91}$ _____

12. $\frac{2}{9} = \frac{30}{135}$ _____

$\frac{8}{3} = \frac{96}{36}$ _____

$\frac{5}{2} = \frac{75}{20}$ _____

Lesson 4.2 Testing Proportional Relationships

A **ratio** is a comparison of two numbers. A **proportion** expresses the equality of two ratios.

A ratio can be expressed as 1 to 2, 1:2, or $\frac{1}{2}$, and it means that for every 1 of the first item, there are 2 of the other item.

Cross-multiply to determine if two ratios are equal.

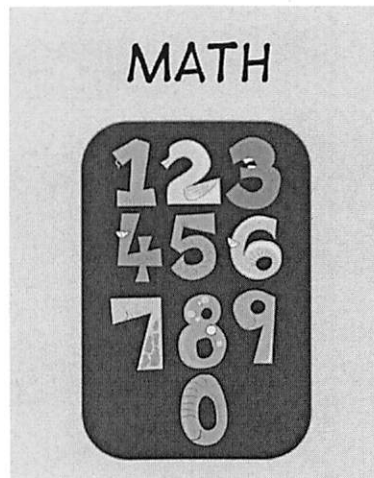
$$\frac{2}{4}, \frac{3}{6} \quad 2 \times 6 = 12 \quad 3 \times 4 = 12 \quad \frac{2}{4} = \frac{3}{6}$$

Circle the ratios that are equal. Show your work.

	a	b	c
1.	$\frac{1}{3}, \frac{2}{6}$	$\frac{3}{8}, \frac{1}{4}$	$\frac{3}{5}, \frac{9}{15}$
2.	$\frac{3}{4}, \frac{9}{12}$	$\frac{1}{2}, \frac{4}{8}$	$\frac{5}{6}, \frac{15}{18}$
3.	$\frac{5}{8}, \frac{4}{7}$	$\frac{1}{2}, \frac{1}{4}$	$\frac{4}{3}, \frac{16}{12}$
4.	$\frac{6}{18}, \frac{2}{6}$	$\frac{3}{25}, \frac{6}{50}$	$\frac{1}{8}, \frac{2}{10}$
5.	$\frac{1}{4}, \frac{2}{4}$	$\frac{5}{10}, \frac{3}{6}$	$\frac{4}{24}, \frac{7}{42}$
6.	$\frac{3}{5}, \frac{5}{3}$	$\frac{7}{8}, \frac{21}{24}$	$\frac{8}{23}, \frac{9}{46}$
7.	$\frac{7}{4}, \frac{28}{16}$	$\frac{3}{9}, \frac{1}{3}$	$\frac{16}{20}, \frac{9}{10}$
8.	$\frac{8}{100}, \frac{80}{50}$	$\frac{8}{12}, \frac{10}{14}$	$\frac{15}{20}, \frac{3}{4}$
9.	$\frac{9}{2}, \frac{12}{3}$	$\frac{6}{3}, \frac{8}{4}$	$\frac{1}{3}, \frac{11}{33}$
10.	$\frac{12}{7}, \frac{36}{21}$	$\frac{10}{12}, \frac{15}{20}$	$\frac{3}{4}, \frac{9}{16}$

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Math 7

Day 4