



**THIRD SPACE
LEARNING**

Ratio Problem Solving Worksheet

Ratio and Proportion

Grades 6 to 8

Skill Questions

Name:

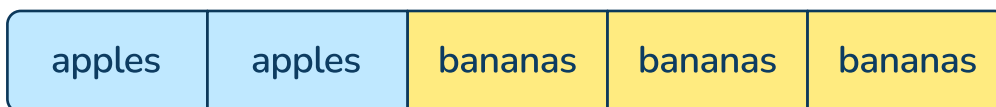
Date:

- 1 Devin is painting an art project. The ratio of the pints of red paint to green paint is represented in the table. Find the missing values.

Red paint	2	3	5	
Green paint	6	9		21

Answer

- 2 The bar model below shows the ratio of apples to bananas at a market. Using this relationship, how many apples will there be if there are 21 bananas?



Answer

- 3 There are 25 students in a class, and 17 of the students are girls. Write a ratio comparing boys to girls.

Answer

- 4 The ratio of volleyball players to soccer players at a particular school is 7:9. If there are 21 volleyball players, what is the ratio of soccer players to total players?

Answer

Ratio Problem Solving Worksheet | Grades 6 to 8

- 5 The exchange rate from US dollars to the British pound is, 1 dollar to 0.80 pound. If a person has \$120 American dollars, how many British pounds will they have?

Answer

- 6 Does the table represent a proportional relationship?

x	y
3	9
4	16
6	36
8	64

Answer

- 7 The relationship between x and y is proportional. When x is 4, y is 52. What is x when y is 260?

Answer

- 8 A recipe calls for $1\frac{1}{3}$ cups of flour for a dozen muffins. How many cups of flour are needed for 4 dozen muffins?

Answer

Ratio Problem Solving Worksheet | Grades 6 to 8

- 9 About 9 out of 20 homes have a pool. If a street has 60 homes, how many would you expect to have a pool?

Answer

-
- 10 A boutique sells 42 dresses every 2 weeks. How long will it take the boutique to sell 462 dresses?

Answer

Applied Questions

- 11** There are 23 girls in a lecture hall class. The ratio of girls to the total number of people in the lecture hall is 23:58. How many boys are in the lecture hall?

Answer

- 12** The ratio of tennis balls to basketballs is 5 to 8. If there are 15 tennis balls, how many total balls are there?

Answer

- 13** At the local carnival, 15 people ride the bumper cars in 20 minutes, and 27 people ride the ferris wheel in 30 minutes.
- a. Which ride will have more people riding it in an hour?

Answer

- b. How many more people?

Answer

Ratio Problem Solving Worksheet | Grades 6 to 8

- 14** Deanna is traveling from New York City to London and then to Madrid. When she arrives in London, she has \$245 that she converts to £ (British pounds).
a. How many £ pounds will she have?

Answer

- b. If she spends £ 120 (British pounds) while in London, how many € (euros) will she have when she arrives in Madrid?

Answer

\$1.00 equals £ 0.81

£ 1.00 equals €1.16

-
- 15** Darius is planning a road trip. On a map, $1\frac{1}{3}$ inches represent 22 miles. Darius is driving from Boston, Massachusetts to Narragansett, Rhode Island. If there are approximately 86 miles between Boston and Narragansett, then approximately how many inches is that on the map?

Answer

Answers

Question number	Question	Answers	Standard										
1	Devin is painting an art project. The ratio of the pints of red paint to green paint is represented in the table. Find the missing values. <table><tr><td>Red paint</td><td>2</td><td>3</td><td>5</td><td></td></tr><tr><td>Green paint</td><td>6</td><td>9</td><td></td><td>21</td></tr></table>	Red paint	2	3	5		Green paint	6	9		21	The missing values: Red paint: 5 pints Green paint: 15 pints Red paint: 7 pints Green paint: 21 pints	6.RP.A.3
Red paint	2	3	5										
Green paint	6	9		21									
2	The bar model below shows the ratio of apples to bananas at a market. Using this relationship, how many apples will there be if there are 21 bananas? <table><tr><td>apples</td><td>apples</td><td>bananas</td><td>bananas</td><td>bananas</td></tr></table>	apples	apples	bananas	bananas	bananas	14 apples	6.RP.A.3					
apples	apples	bananas	bananas	bananas									
3	There are 25 students in a class, and 17 of the students are girls. Write a ratio comparing boys to girls.	Boys to girls 8 to 17 OR 8:17	6.RP.A.3										
4	The ratio of volleyball players to soccer players at a particular school is 7:9. If there are 21 volleyball players, what is the ratio of soccer players to total players?	27:48	6.RP.A.3										
5	The exchange rate from US dollars to the British pound is, 1 dollar to 0.80 pound. If a person has \$120 American dollars, how many British pounds will they have?	\$120 = £ 96	7.RP.A.2										

Ratio Problem Solving Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard										
6	Does the table represent a proportional relationship? <table><tr><th>x</th><th>y</th></tr><tr><td>3</td><td>9</td></tr><tr><td>4</td><td>16</td></tr><tr><td>6</td><td>36</td></tr><tr><td>8</td><td>64</td></tr></table>	x	y	3	9	4	16	6	36	8	64	The table does not represent a proportional relationship because the ratios comparing x and y are not equal. $\frac{x}{y} = \frac{3}{9} \neq \frac{4}{16} \neq \frac{6}{36} \neq \frac{8}{64}$	7.RP.A.2
x	y												
3	9												
4	16												
6	36												
8	64												
7	The relationship between x and y is proportional. When x is 4, y is 52. What is x when y is 260?	$x = 20$	7.RP.A.2										
8	A recipe calls for $1\frac{1}{3}$ cups of flour for a dozen muffins. How many cups of flour are needed for 4 dozen muffins?	$5\frac{1}{3}$ cups of flour	7.RP.A.2										
9	About 9 out of 20 homes have a pool. If a street has 60 homes, how many would you expect to have a pool?	27 homes have a pool	7.RP.A.2										
10	A boutique sells 42 dresses every 2 weeks. How long will it take the boutique to sell 462 dresses?	22 weeks	7.RP.A.2										
11	There are 23 girls in a lecture hall class. The ratio of girls to the total number of people in the lecture hall is 23:58. How many boys are in the lecture hall?	35 boys	6.RP.A.3										
12	The ratio of tennis balls to basketballs is 5 to 8. If there are 15 tennis balls, how many total balls are there?	39 total balls	6.RP.A.3										

Ratio Problem Solving Worksheet | Grades 6 to 8 | Answers

Question number	Question	Answers	Standard
13	At the local carnival, 15 people ride the bumper cars in 20 minutes, and 27 people ride the ferris wheel in 30 minutes. a. Which ride will have more people riding it in an hour? b. How many more people?	a. Ferris wheel has more people in ride in an hour. b. $\frac{15}{20} = \frac{45}{60}$ $\frac{27}{30} = \frac{54}{60}$ 45 people ride the bumper cars in an hour and 54 people ride the ferris wheel in an hour. $54 - 45 = 9$ people 9 more people	7.RP.A.2
14	Deanna is traveling from New York City to London and then to Madrid. When she arrives in London, she has \$245 that she converts to £ (British pounds). a) How many £ pounds will she have? b) If she spends £ 120 (British pounds) while in London, how many € (euros) will she have when she arrives in Madrid? \$1.00 equals £ 0.81 £ 1.00 equals €1.16	a) £ 198.45 (British pounds) b) € 91.00 (euros)	7.RP.A.2
15	Darius is planning a road trip. On a map, $1\frac{1}{3}$ inches represent 22 miles. Darius is driving from Boston, Massachusetts to Narragansett, Rhode Island. If there are approximately 86 miles between Boston and Narragansett, then approximately how many inches is that on the map?	Approximately, $5\frac{7}{33}$ or 5.21 inches	7.RP.A.2

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