

Unit 1 - TEST

Ratios and Proportional Relationships

Math 8

Answers:

Part 1: Write the ratio of the given objects.



The ratio of  to  is 5:4.



The ratio of  to  is 3:4.



The ratio of **a** to **b** is 12:13.

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Part 2: Determine the unit rate.

1. 360 words in 10 minutes

36 words per minute

2. 960 cupcakes in 4 hours

240 cupcakes per hour

3. \$19.2 for 8 burgers

\$2.4 per burger

Part 3: Find the unknown value that will make each pair of ratios equivalent.

1. $4:x = 2:32$

$x = 64$

2. $24:32 = 12:x$

$x = 16$

3. $x:25 = 60:75$

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$x = 20$

Part 4: Arrange the following ratios from least to greatest.

1. 16:32 27:36 12:48

$12:48, 16:32, 27:36$

2. 45:75 9:45 90:225

$9:45, 90:225, 45:75$

Part 5: Complete the table. Fractions must be in simplest form and decimals rounded off to the nearest hundredths.

	Fraction	Percent	Decimal
1.	$\frac{46}{100}$	46%	0.46
2.	$\frac{9}{20}$	45%	0.45
3.	$\frac{3}{4}$	75%	0.75

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4.

$\frac{3}{10}$	30%	0.30
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Part 6: Answer the following problems.

1. In a football club, 55 out of 80 club members are boys.

a. What percent of the club are boys?

Solution: 69%

b. What percent of the club are girls?

Solution: 31%

c. Express the percent of boys in fraction.

Solution: 11/16

d. Express the percent of girls in fraction.

Solution: 5/16

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2. Michelle's toy treasure chest is 40 centimeters long and 30 centimeters wide. How many more millimeters is the length of the treasure chest than the width?

Solution: 40 centimeters = 400 millimeters

30 centimeters = 300 millimeters

$400 \text{ mm} - 300 \text{ mm} = 100 \text{ mm}$ more is the length of the treasure chest than the width.