unit 5

Multiple Choice

Identify the choice that best completes the statement or answers the question.

1. You and a friend jogged for a total of 20 miles. Use the tape diagram to find how many miles you jog.

You



Friend



- a. 17
- i. 1

- c. 15
- d. 5

Name the word that matches the definition given.

2. A ratio of two quantities using different units

- a. ratio
- b. equivalent ratios
- c. ratio table

- d. rate
- e. unit rate
- f. equivalent rates

Date: _

Write the ratio in simplest form.

3. $\frac{25}{40}$

- a. $\frac{5}{8}$
- b. $\frac{8}{5}$

- c. $\frac{5}{13}$
- d. $\frac{3}{8}$

4. $\frac{38}{32}$

- a. $\frac{16}{19}$
- b. $\frac{19}{16}$

- c. $\frac{19}{36}$
- d. $\frac{16}{35}$

5. Find the missing value in the ratio table. Then write the equivalent ratios.

Violins	7		
Cellos	4	16	

- a. 19; 7:19 and 4:16
- b. 28; 7:28 and 4:16

- c. 28; 7:4 and 28:16
- d. 19; 7: 4 and 19: 16

Find the speed.

6. 940 miles in 47 hours

- a. 940 mi/h
- b. 44,180 mi/h

- c. 20 mi/h
- d. 24 mi/h

Tell which number is greater.

 $\frac{9}{25}$, 36%

a. $\frac{9}{25}$

b. 36

c. They are equal.

Write the mixed number as a percent.

8. $9\frac{23}{50}$

- a. 947%
- b. 943%

- c. 949%
- d. 946%

Find the percent of the number.

9. 9.5% of 120

- a. 15.7
- b. 114

- c. 10.41
- d. 11.4

10. 81% of 78

- a. 63.18
- ь. 59.94

- c. 65
- d. 14.82

Numeric Response

Write the fraction or mixed number as a percent.

- 1. $\frac{7}{8}$
- 2. $1\frac{13}{20}$

Find the percent of the number.

- 3. 20% of 90
- 4. 17% of 40

5. 158% of 200

Complete the statement. Round to the nearest hundredth if necessary.

- 6. 4 gal ≈ L
- 7. The ratio of offensive players to defensive players on a football team is 4:3. There are 21 defensive players on the team. How many offensive players are there?
- 8. For a class trip, the teachers would like to have one adult for every 10 students. There are 190 students on the trip. How many adults should go on the trip?
- 9. About 0.33 of the animals in a pet store were dogs. Write this decimal as a percent.
- 10. A new pair of shoes is advertised for \$110. The sales tax is 7.5%. What is the total cost of the shoes?

Short Answer

Find the missing values in the ratio table. Then write the equivalent ratios.

1.	Trucks	2		30
	Cars	3	9	

Write a rate that represents the situation.

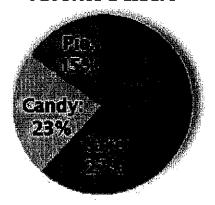
2. Births
0 5 10 15 20 25
0 4 8 12 16 20
Hours

Write a unit rate for the situation.

- 3. 20 meters in 4 seconds
- 4. 400 miles on 20 gallons
- 5. You can buy an 8-pack of paper towels for \$7.92 or a 12-pack for \$11.64. Which is the better buy?

6. The results of a survey are shown. In the survey, 28 students said their favorite dessert is ice cream.

Favorite Dessert



- a. How many students were surveyed?
- b. How many students said their favorite dessert is pie?

Use the table below that shows the number of first downs in a football game.

Team	Cougars	Gators	
Total First Downs	16	20	
By rushing	8	4	
By passing	6	15	
By penalty	2	1	

- 7. Which team had a smaller percent of first downs by penalty?
- 8. In a class, 60% of the students are girls. There are 18 girls in the class.
 - a. How many students are in the class?
 - b. How many boys are in the class?

Determine which vehicle gets the better gas mileage.

9.	Motorcycle	Α	В
	Distance (miles)	315	360
	Gallons used	6	8

10. Five out of every 8 students surveyed enjoys playing video games. The difference between the number of students who play video games and those who do not is 20. How many students were surveyed? Explain how you found your answer.

Write a rate that represents the situation.

11. 110 games in 15 weeks

12.

Input, &	1	2	3	4
Output, y	4	5	6	7

1

Use a 10-by-10 grid to model the percent.

13. 87%

Complete the statement. Round to the nearest hundredth, if necessary.

14.
$$\frac{7300 \text{ mi}}{\text{h}} \approx \frac{? \text{ mi}}{\text{sec}}$$

15.
$$1.5 \text{ mi} = ?$$
 ft

16.
$$2000 \text{ mm} = ? \text{ cm}$$

Tell which measure is greater.

- 17. 1 pound, 0.6 kilogram
- 18. One liter of deck stain covers about 50 square feet. How many gallons does it take to cover a deck with an area of 1840 square feet?

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