

STUDY GUIDE

Vocabulary Matching

For numbers 1-3, match the correct term with its definition.

- 1) Define rate: A ratio that compares quantities measured in different units
- 2) Define unit rate: A comparison of two measurements in which one of the terms has a value of 1
- 3) Define ratio: A comparison of two numbers

Use the picture to the right to answer questions 5-7

- 4) What is the ratio of footballs to ALL balls? 4:16 = 1:4
- 5) What is the ratio of basketballs to soccer balls and footballs? 3:9 = 1:3
- 6) Was the ratio in question #5 a part to part or part to whole ratio? PART TO PART
- 7) Write a ratio that show a part to part relationship. 5:3 (SOCCER : BASKETBALL)
- 8) Write a ratio that shows a part to whole relationship. 3:16 (BASKETBALL : TOTAL)
- 7) An animal shelter has 18 kittens and 9 puppies available for adoption. What is the ratio of puppies to kittens? 9:18 = 1:2



- 8) ECMS spent \$105 for 15 pizzas for the Homework Stars Party. What is the unit rate (price per pizza)? \$7 per pizza
- 9) Use ratio language to write the following: 4 bananas : 2 apples
FOR EVERY 4 BANANAS, THERE ARE 2 APPLES

Use the table to answer questions 10 and 11.

The table below shows the rates of 2 racecars in a race. Evaluate the unit rates to complete the chart.

Racecar	Rate	Unit Rate (miles per hour)
Red Car	360 miles/3 hours	<u>120 mph</u>
Yellow Car	750 miles/5 hours	<u>150 mph</u>

- 10) In the chart above, which car was the fastest? Yellow

- 11) Kayla bought 6 candies for \$3.60. Isaac bought 15 candies for \$11.25. How much did each student pay per candy?

$$3 \overline{) 11.25} \\ \underline{10 } \\ 125 \\ \underline{120} \\ 25 \\ \underline{25} \\ 0$$

$$6 \overline{) 3.60} \\ \underline{36} \\ 00$$

KAYLA \$0.60 per candy
ISAAC \$0.75 per candy

12) Complete the ratio table.

13	26	39	52
1	2	3	4

13) Complete the ratio table.

4	12	20	32
7	21	35	56

14) Complete the ratio table.

2	6	18	60
3	9	27	90

15) Is the pair of ratios equivalent? $\frac{2}{3} = \frac{4}{6}$

$2 \times 6 = 12$
 $4 \times 3 = 12$
 $12 = 12$ ✓ yes

16) Is the pair of ratios equivalent? $\frac{14}{20} = \frac{7}{10}$

$14 \times 10 = 140$
 $7 \times 20 = 140$
 $140 = 140$ yes

17) Is the pair of ratios equivalent? $\frac{12}{40} = \frac{6}{10}$

$12 \cdot 10 = 120$
 $6 \cdot 40 = 240$
 $120 \neq 240$ NO

18) Jayda sent 72 texts in 6 days. At this rate, how many texts will she send in 10 days?

$72 \div 6 = 12$ so 12 texts per day
 $12 \times 10 = 120$ texts in 10 days

19) Coke costs \$3.90 for 6 cans and Pepsi costs \$2.80 for 4 cans. Which one is the better deal?

$6 \overline{) 3.90}$
 $\underline{36}$
 30

Coke \$0.65 per can
 Pepsi \$0.70 per can

$4 \overline{) 2.80}$
 $\underline{28}$
 0

Coke is the better deal. It is cheaper per can.

20) Dunkin donuts sells a dozen donuts for \$13.44, Krispy Cream sells a half dozen for \$5.94. Which one is the better deal?

$12 \overline{) 13.44}$
 $\underline{12}$
 144
 $\underline{144}$
 0

DD - \$1.12 per donut

KC - \$0.99 per donut

$6 \overline{) 5.94}$
 $\underline{6}$
 54
 $\underline{54}$
 0

Krispy Cream is the better deal. It is cheaper per donut.

21) Explain how to simplify a ratio:

Divide both numbers by the greatest common factor.

Simplify the following ratios:

22) 9 to 27

$\div 9 \div 9$
 1 to 3

23) 4 : 26

$\div 2 \div 2$
 2 : 13

24) $\frac{14}{56} \div 14$

$\frac{1}{4}$

25) 11 : 13

$11 : 13$

already simplified
 no common factors.