

STUDY GUIDE FOR UNIT RATES TEST

NAME: Key PERIOD: _____ DATE: _____

1. WHAT ARE THE FIRSTS 5 PERFECT SQUARES?

1 4 9 16 25

2. ESTMIATE $\sqrt{130}$

113 - 114

3. ESTIMATE $\sqrt{27}$

52 - 53

WRITE THE FRACTIONS BELOW AS A DECIMAL.

4. $\frac{3}{4}$

0.75

5. $\frac{1}{3}$

0.33

6. $\frac{5}{6}$

0.833

FIND THE UNIT RATE ROUND EACH ANSWER TO THE NEAREST TENTH.

7. 500 feet in 7 seconds

71.4 ft/sec

8. 78 miles on 3 gallons of gas

26 mi/gallon

9. 7 penguins for \$188.88

26.98/penguin

10. \$37.29 for 2 pairs of ducks

18.65/pair

11. 3 pizzas for \$19.99

6.66/pizza

12. 192 students in 4 buses

48 students/bus

WHICH IS THE BETTER BUY?

13. 5 gallon bucket of paint for \$97.45 or a 1 gallon bucket of paint for \$21.95.

14. 50 head of cattle for \$24,500 or 37 head of cattle for \$18,870

15. A 16 oz package of brown rice costs 79 cents and 32 oz package of white rice costs \$3.49. Which package is a better deal?

16. Kleenex 100 Tissues for \$1.99 or Puffs 60 Tissues for \$1.79

17. FOR EACH PROBLEM BELOW, FIND THE UNIT RATE, THEN USE THE UNIT RATE TO ANSWER THE QUESTION.

18. Andy drove 840 miles in 12 hours. How far could he drive in 3 hours?

$$\frac{210 \text{ mi}}{3 \text{ hr}}$$

19. Miranda works for 7 hours at \$10.25 per hour. How much does she earn if she works 12 hours?

$$\frac{\$123}{12 \text{ hrs}}$$

20. Gas mileage is the number of miles you can drive on one gallon of gas. A new car runs for 450 miles on 14 gallons of gas. What is the car's gas mileage? How far could you drive with 60 gallons of gas?

$$\frac{32.14 \text{ mi}}{1 \text{ gal}}$$

$$\frac{1,928.4 \text{ mi}}{60 \text{ gal}}$$

21. The bakers can make 160 bagels in 5 hours. How many bagels can they make in 12 hours?

$$\frac{32 \text{ bag}}{1 \text{ hr}}$$

$$\frac{384 \text{ bag}}{12 \text{ hrs}}$$

USING THE UNIT RATES GIVEN, CONVERT THEM INTO THE DESIRED UNITS OF MEASUREMENT.

22. 30 miles per hour = 0.5 miles per minute

23. 10 feet per minute = 0.2 feet per second

24. 3 gallons per hour = 0.01 pints/second (4 pints = 1 quart, 2 quarts = 1 gallon)

USING THE TABLES PROVIDED, INDICATE THE RATE OF CHANGE AND IF IT IS CONSTANT.

25.

X	Y
3	30
4	40
6	42
10	70

NO

26.

X	Y
2	8
4	16
7	28
8	32

yes

27.

X	Y
1	6
2	7
3	8
4	9

NO

28.

X	Y
-12	-40
-9	-30
-6	-20
-3	-10

yes