

STUDY GUIDE: FINDING UNIT RATE AND CONVERTING UNIT RATES

NAME: KEY PERIOD: _____ DATE: _____

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

1. Type 800 words in 12 minutes

$$\frac{66.67 \text{ words}}{1 \text{ min}}$$

2. 357 miles in 5 hours

$$\frac{71.4 \text{ miles}}{1 \text{ hour}}$$

3. A 10-lb bag of cherries for \$33.49

$$\frac{3.35}{1 \text{ lb.}}$$

4. Earn \$134 in 8 hours

$$\frac{16.75}{1 \text{ hr}}$$

5. 3500 calories for 6 servings of pie

$$\frac{583.3 \text{ calories}}{1 \text{ serving}}$$

6. \$37.29 for 2 pairs of jeans.

$$\frac{18.65}{1 \text{ pair}}$$

7. 24 senior citizens in 12 RVs

$$\frac{2 \text{ seniors}}{1 \text{ RV}}$$

WHICH IS THE BETTER BUY? Hundreth

8. A 12.5-oz. bag of Doritos for \$3.79 or a 3-oz. bag for \$1.00.

9. 12 bars of soap for \$10.00 or 5 bars of soap for \$4.00.

10. A box of 84 penguins for \$13,597 or a bag of 50 penguins for \$795.95.

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

11. Jesus bought 3 pairs of jeans for \$71.40. How much would he need to pay for 8 pairs of jeans?

$$\$190.40$$

12. Morgan scored 41 points in 3 games. How many points would you expect him to make in an 11-game season.

$$150.33 \text{ pts}$$

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

13. 55 miles per hour = 0.92 miles per minute

14. 6 feet per minute = ~~500~~ 0.1 feet per second

15. 45 miles/hour = ~~300~~ 66 feet/second

16. 8 gallons/hour = 2.13 pints/minute

FACTOR

17. $10x - 55$

$5(2x - 11)$

18. $56 + 72y$

$8(7 + 9y)$

APPLY THE DISTRIBUTIVE PROPERTY.

19. $-4(-7 + 9r)$

$28 - 36r$

20. $3(3 - 5y)$

$9 - 15y$

SOLVE FOR THE VARIABLE.

21. $3x + 5 - 5x = -12 + x + 2$

$-2x + 5 = -10 + x$

$-3x = -15$

$x = 5$

22. $2h + 7 \leq 3h + 1$

$6 \leq h$

$h \geq 6$

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

X	Y
3	30
4	40
6	42
10	70

no

X	Y
1	6
2	7
3	8
4	9

no

X	Y
2	8
4	16
7	28
8	32

yes

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

yes