

**Ratios, Rates, Best Buys Worksheet****Multiple Choice**

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

- \_\_\_\_\_ 1. A normal deck of playing cards has 52 cards in four suits (clubs, diamonds, hearts, and spades) of 13 cards each. The ratio of spades to the whole deck of cards is  
a. 1:1                      b. 1:4                      c. 2:3                      d. 2:4
- \_\_\_\_\_ 2. Determine the value of  $x$  if  $9:7 = x:42$ .  
a. 7                          b. 21                          c. 27                          d. 54
- \_\_\_\_\_ 3. Determine the value of  $x$  if  $\frac{x}{48} = \frac{7}{3}$ .  
a. 16                          b. 32                          c. 80                          d. 112
- \_\_\_\_\_ 4. Determine the value of  $x$  if  $\frac{49}{63} = \frac{7}{x}$ .  
a. 9                              b. 14                              c. 18                              d. 32
- \_\_\_\_\_ 5. A normal deck of playing cards has 52 cards in four suits (clubs, diamonds, hearts, and spades) of 13 cards each. Two of the suits are black and two of the suits are red. The ratio of black cards to red cards is  
a. 1:1                          b. 1:2                          c. 2:3                          d. 2:4
- \_\_\_\_\_ 6. A 40% chance of rain means that the probability of no rain is  
a. 70%                              c.  $\frac{6}{10}$   
b.  $\frac{4}{10}$                               d. 10%
- \_\_\_\_\_ 7. A photo has a length to width ratio of 8:5. If the length of the photo is 13.6 cm, the width of the photo is  
a. 3.0 cm                          b. 8.5 cm                          c. 18.6 cm                          d. 21.8 cm
- \_\_\_\_\_ 8. A change purse contains two loonies, six quarters, seven dimes, four nickels, and five pennies. Compare the dimes to the pennies using a ratio.  
a. 2:3                              b. 3:2                              c. 4:5                              d. 7:5
- \_\_\_\_\_ 9. Sandra works at a carwash and makes \$8.75/h. After working 5.5 h, Sandra will make  
a. \$48.13                          b. \$35.00                          c. \$43.75                          d. \$57.50
- \_\_\_\_\_ 10. Lewis read 35 pages of a novel in 25 min. At this rate, determine how many pages he can read in one hour.  
a. 70                              b. 72                              c. 78                              d. 84
- \_\_\_\_\_ 11. If 450 grams of chocolate cost \$6.00, how many grams can you get for \$1.00?  
a. 75 g                              b. 100 g                              c. 150 g                              d. 2700 g
- \_\_\_\_\_ 12. Hawlie works at a movie theatre and earns \$8.25 per hour. How much will she earn after six hours of work?  
a. \$24.75                          b. \$48.00                          c. \$49.50                          d. \$54.00

Name: \_\_\_\_\_

ID: A

- \_\_\_\_\_ 13. Jack typed 8640 words in three hours. What is his unit rate per minute?  
a. 24 words/min    b. 48 words/min    c. 96 words/min    d. 108 words/min
- \_\_\_\_\_ 14. The grocery store sells ketchup in different sizes of bottles: 375 mL for \$2.99, 500 mL for \$3.79, 1 L for \$3.99, and 1.5 L for \$5.49. Which size is the best buy?  
a. 375 mL    b. 500 mL    c. 1 L    d. 1.5 L
- \_\_\_\_\_ 15. The drugstore sells shampoo in different sizes of bottles: 384 mL for \$3.99, 400 mL for \$3.97, 500 mL for \$4.77, and 700 mL for \$6.49. Determine the better buy.  
a. 384 mL    b. 400 mL    c. 500 mL    d. 700 mL
- \_\_\_\_\_ 16. Karen ran 200 m in 40 s, Ethan ran 300 m in 52 s, Saren ran 100 m in 19 s, and George ran 400 m in 73 s. Who ran the fastest per metre?  
a. Ethan    b. George    c. Karen    d. Saren
- \_\_\_\_\_ 17. Cola is on sale at six bottles for \$3.99. Each bottle contains 710 mL of pop. What is the price per 100 mL when purchased this way?  
a. \$0.4 per 100 mL    c. \$0.94 per 100 mL  
b. \$0.09 per 100 mL    d. \$1.07 per 100 mL

**Short Answer**

18. Write each ratio in lowest terms.

<b>a)</b> 8:32	<b>b)</b> 10:80	<b>c)</b> 5:125	<b>d)</b> 18:27
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<b>a)</b>	<b>b)</b>	<b>c)</b>	<b>d)</b>
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19. Determine the value of  $x$  for each proportion.

<b>a)</b> $2:13 = 8:x$	<b>b)</b> $18:4 = x:2$	<b>c)</b> $x:12 = 35:60$	<b>d)</b> $3:x = 36:48$
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20. Determine the unit rate in each situation.  
**a)** Kate earned \$20.25 in 3 h selling lemonade.  
**b)** Josh drove 212 km in 4 h.  
**c)** David caught 21 fish in 7 h on the bay.  
**d)** Tia baked 57 muffins in 3 h.