

## Fraction Operations

**Choose the best answer. Be sure it is in simplest form.**

1. What is the least common multiple of 4 and 6?  

A 2	C 16
B 12	D 24
  
2. What is the least common multiple of 10, 12, and 15?  

F 30	H 90
G 60	J 120
  
3. Add  $\frac{3}{4} + \frac{3}{16}$ .  

A $\frac{3}{10}$	C $\frac{15}{16}$
B $\frac{6}{20}$	D $\frac{15}{4}$
  
4. Subtract  $\frac{7}{8} - \frac{2}{5}$ .  

F $\frac{19}{40}$	H $\frac{19}{8}$
G $\frac{5}{3}$	J $\frac{19}{5}$

5. Subtract  $6 - 3\frac{2}{3}$ .  

A $\frac{8}{3}$	C $3\frac{1}{3}$
B $2\frac{1}{3}$	D $9\frac{2}{3}$
  
6. Sara buys  $4\frac{7}{10}$  m of fabric. If she uses  $2\frac{9}{10}$  meters, how much fabric is left over?  

F $1\frac{8}{5}$ m	H $2\frac{1}{5}$ m
G $1\frac{4}{5}$ m	J $2\frac{4}{5}$ m
  
7. Solve  $r + 5\frac{4}{7} = 12$ .  

A $6\frac{3}{7}$	C $7\frac{3}{7}$
B $6\frac{4}{7}$	D $17\frac{4}{7}$
  
8. Solve  $3\frac{1}{10} = y - 2\frac{2}{5}$ .  

F $\frac{1}{2}$	H $5\frac{3}{10}$
G $\frac{7}{10}$	J $5\frac{1}{2}$

## Fraction Operations

9. Multiply  $4 \cdot 3\frac{1}{2}$ .

- |                   |                   |
|-------------------|-------------------|
| A 12              | C $12\frac{4}{2}$ |
| B $12\frac{1}{2}$ | D 14              |

10. Multiply  $\frac{3}{4} \cdot 2\frac{2}{5}$ .

- |                   |                   |
|-------------------|-------------------|
| F $\frac{3}{10}$  | H $3\frac{3}{20}$ |
| G $2\frac{3}{10}$ | J $1\frac{4}{5}$  |

11. Multiply  $1\frac{1}{5} \cdot 2\frac{3}{4}$ .

- |                   |                    |
|-------------------|--------------------|
| A $\frac{3}{20}$  | C $3\frac{19}{20}$ |
| B $3\frac{3}{20}$ | D $3\frac{3}{10}$  |

12. Divide  $\frac{5}{8} \div \frac{2}{3}$ .

- |                  |                   |
|------------------|-------------------|
| F $\frac{5}{12}$ | H $\frac{15}{16}$ |
| G $\frac{4}{5}$  | J $\frac{3}{2}$   |

13. Divide  $4\frac{5}{8} \div \frac{2}{3}$ .

- |                   |                    |
|-------------------|--------------------|
| A $3\frac{1}{12}$ | C $6\frac{15}{16}$ |
| B $5\frac{7}{14}$ | D $\frac{11}{16}$  |

14. Divide  $5\frac{1}{3} \div 1\frac{2}{3}$ .

- |                   |                  |
|-------------------|------------------|
| F $\frac{16}{15}$ | H $3\frac{2}{3}$ |
| G $3\frac{1}{5}$  | J 7              |

15. Solve  $7k = \frac{4}{5}$ .

- |                  |                  |
|------------------|------------------|
| A $\frac{4}{35}$ | C $\frac{28}{5}$ |
| B $\frac{5}{28}$ | D $\frac{35}{4}$ |

16. Solve  $\frac{4}{5}p = 8$ .

- |                  |                  |
|------------------|------------------|
| F $6\frac{2}{5}$ | H $\frac{40}{4}$ |
| G $7\frac{1}{5}$ | J 10             |

## Decimals

**Choose the best answer.**

1. Write 4.24 in expanded form and in word form.
  - A  $4 + 0.2 + 0.4$ ; four and two hundred four tenths
  - B  $4 + 0.2 + 0.04$ ; four and twenty-four hundredths
2. Which number is the greatest?
  - A 2.02                      C 2.20
  - B 2.15                      D 2.25
3. Order the decimals from greatest to least.
  - A 5.8, 5.08, 5.78
  - B 5.08, 5.78, 5.8
  - C 5.8, 5.78, 5.08
  - D 5.08, 5.8, 5.78
4. Estimate by rounding to the nearest tenth:  $5.56 + 2.1$ .
  - A  $5.0 + 2.0 = 7.0$
  - B  $5.6 + 2.1 = 7.7$
5. Which product gives the closest estimate of  $3.2 \times 6.9$ ?
  - A  $3 \times 7$                       C  $4 \times 6$
  - B  $3 \times 9$                       D  $4 \times 7$
6. Estimate a range for the sum:  $7.6 + 2.3 + 6.7$ 
  - A 15 to 16
  - B 15 to 18
  - C 17 to 18
  - D 18 to 19
7. Add  $2.2 + 3.4$ .
  - A 5.6
  - B 56
8. Evaluate  $5.9 - n$  for  $n = 1.4$ .
  - A 4.5
  - B 45
9. Find the product:  $4 \times 3.2$ .
  - A 0.128                      C 12.8
  - B 1.28                      D 128
10. Find the product:  $0.2 \times 4.2$ .
  - A 0.84
  - B 8.4
11. Evaluate  $3m$  for  $m = 7.3$ .
  - A 21.9
  - B 219
12. Find the quotient:  $\$24.75 \div 3$ .
  - A \$8.00
  - B \$8.25
13. Evaluate  $8.4 \div j$  for  $j = 4$ .
  - A 2.1
  - B 4.4
  - C 21
  - D 33.6
14. It costs \$45.60 for 3 rolls of wallpaper. What is the cost per roll?
  - A \$15.20
  - B \$15.60
15. A piece of yarn is 14.4 in. long. How many strips, each 3.6 in. long, can be cut from the yarn?
  - A 2
  - B 3
  - C 4
  - D 5

## Decimals

16. Find the quotient:  $6.02 \div 4.3$ .
- A 1.4
  - B 1.72
  - C 14
  - D 559
17. Estimate the quotient  $12.76 \div 2.2$ .
- A 6
  - B 12
  - C 24
  - D 60
18. An eraser costs \$2.00. What is the greatest number of erasers that Lucinda can buy with \$12.00?
- A 4
  - B 6
  - C 12
  - D 2
19. Mrs. Makato is planting her garden. She has 5 different types of vegetables. She wants to have one row for each vegetable. If the garden is 7.5 meters wide, how wide should each row be?
- A 1 m
  - B 1.5 m
  - C 2 m
  - D 2.5 m
20. Joanna wants to buy juice drinks for 10 people. If juice drinks come in packages of 6, how many packages does she need to buy?
- A 1.4 packages
  - B 2 packages
21. Solve the equation:  $w - 2.1 = 4.7$ .
- A  $w = 2.6$
  - B  $w = 6.8$
22. Solve the equation:  $3m = 16.8$ .
- A  $m = 5.6$
  - B  $m = 13.2$
  - C  $m = 19.8$
  - D  $m = 50.4$
23. Solve the equation:  $f + 4.2 = 7.9$ .
- A  $f = 3.7$
  - B  $f = 12.1$

## Proportional Relationships

**Choose the best answer.**

1. George has 3 cats and 2 dogs. What is the ratio of cats to the total number of pets?

A 2 to 5                      C 3 to 5  
 B 3 to 2                      D 5 to 5

2. Which ratio is equivalent to  $\frac{2}{5}$ ?

F  $\frac{2}{10}$                       H  $\frac{4}{5}$   
 G  $\frac{4}{10}$                       J  $\frac{5}{5}$

3. Which of the following is the best deal?

A 6-oz box of crackers for \$1.08  
 B 7-oz box of crackers for \$1.19  
 C 8-oz box of crackers for \$1.20  
 D 9-oz box of crackers for \$1.26

4. Which of these sets of ratios is equivalent to 4:5?

F 4:10, 12:15, 16:20  
 G 8:10, 11:15, 16:20  
 H 8:10, 12:15, 15:20  
 J 8:10, 12:15, 16:20

5. The table shows the price of different numbers of apples. Predict the cost of 3 apples.

Apples	2	4	6	8
Cost	\$0.80	\$1.60	\$2.40	\$3.20

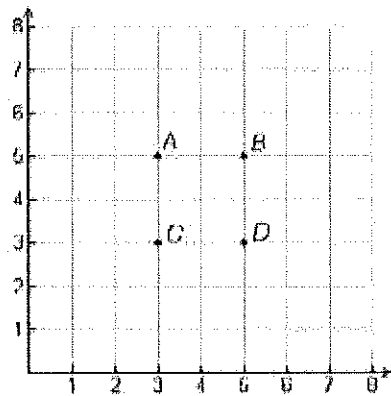
A \$0.40                      C \$12  
 B \$1.20                      D \$120

6. The table shows how much Jamal earns at his part-time job. Predict Jamal's earnings for 7 hours of work.

Hours	2	4	6	8
Pay	\$9.60	\$19.20	\$28.80	\$38.40

F \$3.36                      H \$33.60  
 G \$4.80                      J \$336

7. Which points share the same y-coordinate?



A A and B                      C A and C  
 B C and B                      D B and D

8. What is the missing value in the proportion  $\frac{3}{16} = \frac{H}{32}$ ?

F 3                              H 96  
 G 6                              J  $\frac{512}{3}$

9. A bottle of cat medicine says to give 2 mL for every pound of body weight. How much would you give a 12-lb cat?

A 2 mL                      C 12 mL  
 B 14 mL                      D 24 mL

## Proportional Relationships

10. Which is 42% as a decimal?  
F  $\frac{42}{100}$                       H 4.2  
G 0.42                          J 42
11. Approximately 90% of child car seats are not installed correctly. What is 90% as a fraction in simplest form?  
A  $\frac{90}{100}$                       C  $\frac{9}{5}$   
B  $\frac{9}{10}$                           D  $\frac{90}{10}$
12. What is 0.28 as a percent?  
F 0.28%                      H 28%  
G 2.8%                          J  $\frac{28}{100}$
13. What is  $\frac{3}{4}$  as a percent?  
A 0.75%                      C  $\frac{28}{100}$   
B 7.5%                          D 75%
14. What is 34% of 120?  
F 4.08                          H 86  
G 40.8                          J 408
15. Winn's Discount store has a 33% off sale on all of its merchandise. How much is the discount on a backpack originally costs \$48.95?  
A \$15.95                      C \$32.80  
B \$16.15                      D \$65.10
16. What is 85% of 30?  
F 25.5                          H 55  
G 35.29                      J 283.3
17. 42 is 64% of what number?  
A 26.88                      C 106  
B 65.625                      D 152.38
18. 330% of what number is 92.4?  
F 28                              H 280  
G 30.492                      J 304.92
19. A set of trading cards sells for \$8.95 before tax. After sales tax, it costs \$9.60. What is the sales tax rate?  
A 0.65%                      C 7.26%  
B 6.77%                      D 13.77%