

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Simplify.

1) $10 - (-9)^2$ 1) _____
 A) 91 B) 71 C) 28 D) -71

2) $-4(4 - 6)^2 - 3(2 - 4)^3$ 2) _____
 A) 40 B) 8 C) -40 D) -8

Evaluate the expression for $x = -2$, $y = 3$, $z = -4$.

3) $7x - y^2$ 3) _____
 A) -20 B) 8 C) -23 D) -5

Find the average of the list of numbers.

4) -15, 3, -8, 7, -9, 2, -1 4) _____
 A) -2 B) -3 C) 1 D) -1

Solve the equation.

5) $x - 73,863 = 85,031$ 5) _____
 A) 158,894 B) 12,832 C) -158,894 D) -12,832

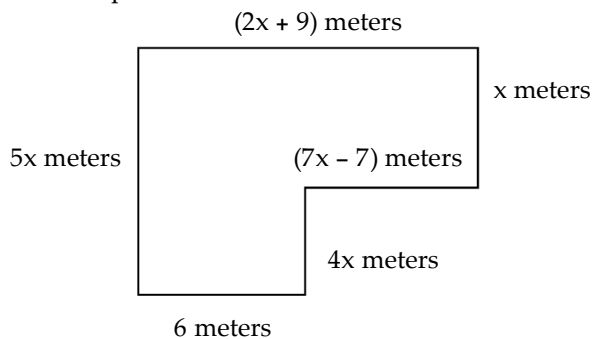
6) $7y = -2981 - 7246$ 6) _____
 A) -609 B) -1461 C) 609 D) 1461

Simplify the expression.

7) $2(7x - 1) - 8(x - 2)$ 7) _____
 A) $6x - 18$ B) $-2x + 14$ C) $6x + 14$ D) $6x - 3$

Find the perimeter or area of the figure as indicated.

8) Find the perimeter. 8) _____



A) $(19x + 8) \text{ m}$ B) $(13x + 22) \text{ m}$ C) $(12x + 8) \text{ m}$ D) $(19x + 2) \text{ m}$

Solve the equation.

9) $\frac{n}{-6} = 4 - (-2)$ 9) _____
 A) -12 B) 36 C) -36 D) 12

10) $8(y + 3) = 10y + 24$ 10) _____
 A) 24 B) 48 C) -24 D) 0

Write the phrase as a variable expression. Use x to represent "a number."

11) The product of 10 and a number, added to 3

A) $30x$

B) $10 + 3x$

C) $3 + 10x$

D) $30 + x$

11) _____

Write the sentence as an equation. Use x to represent "a number."

12) Ten subtracted from a number yields 15.

A) $x - 10 = 15$

B) $10 + x = 15$

C) $10 - x = 15$

D) $15 - 10 = x$

12) _____

Multiply. Write the answer in simplest form.

13) $-\frac{5}{13} \cdot -\frac{78}{35}$

A) $-\frac{30}{7}$

B) $-\frac{6}{7}$

C) $\frac{6}{7}$

D) $\frac{7}{6}$

13) _____

Divide and simplify.

14) $-\frac{6}{7} \div \frac{10}{3}$

A) $-\frac{20}{7}$

B) $\frac{9}{35}$

C) $\frac{20}{7}$

D) $-\frac{9}{35}$

14) _____

Add or subtract as indicated. Write the answer in simplest form.

15) $-\frac{1}{5} - \frac{1}{25}$

A) $-\frac{2}{25}$

B) $\frac{31}{125}$

C) $-\frac{1}{15}$

D) $-\frac{6}{25}$

15) _____

Simplify the complex fraction.

16) $\frac{\frac{4y}{5}}{\frac{1}{10}}$

A) $\frac{y}{8}$

B) $8y$

C) $\frac{8}{y}$

D) $40y$

16) _____

Simplify.

17) $\frac{1}{2} + \frac{1}{4} \cdot \frac{1}{6}$

A) $\frac{7}{4}$

B) $\frac{1}{24}$

C) $\frac{13}{24}$

D) $\frac{1}{8}$

17) _____

18) $\left(\frac{2}{3}\right)^2 \div \left(\frac{2}{3} - \frac{1}{6}\right)$

A) $\frac{4}{9}$

B) $\frac{4}{3}$

C) $\frac{8}{9}$

D) $\frac{2}{9}$

18) _____

Perform the indicated operation. Write the answer as a mixed number in simplest form.

19) $-3\frac{1}{45} \div \left(-1\frac{4}{9}\right)$

19) _____

A) $-2\frac{6}{65}$

B) $2\frac{6}{65}$

C) $5\frac{11}{25}$

D) $-5\frac{11}{25}$

Solve.

20) $-3x = \frac{13}{10}$

20) _____

A) $\frac{13}{30}$

B) $-\frac{13}{30}$

C) $-\frac{39}{10}$

D) $\frac{39}{10}$

21) $\frac{x}{7} = \frac{x}{2} + \frac{1}{7}$

21) _____

A) $-\frac{5}{2}$

B) $-\frac{2}{5}$

C) $-\frac{1}{7}$

D) 0

Add or subtract as indicated. Write the answer in simplest form.

22) $\frac{7x}{12} + \frac{4x}{9}$

22) _____

A) $\frac{11x}{36}$

B) $\frac{21x + 16}{36}$

C) $\frac{21 + 16x}{36}$

D) $\frac{37x}{36}$

Write the decimal as a fraction or mixed number in lowest terms.

23) 76.054

23) _____

A) $\frac{76,054}{1000}$

B) $76\frac{27}{500}$

C) $\frac{76.054}{1000}$

D) $76\frac{3}{50}$

Simplify by combining like terms.

24) $31.2x - 6.7 - 15.4x + 16.3$

24) _____

A) $16.8x + 9.6$

B) $15.8x + 10.6$

C) $15.8x + 9.6$

D) $25.4x$

Multiply.

25) $(-7.3)(7.37)$

25) _____

A) -53.801

B) -538.01

C) -0.53801

D) -5.3801

Divide.

26) Divide 29.58 by 3.4

26) _____

A) 9.7

B) 0.87

C) 87

D) 8.7

Write the fraction as a decimal. If necessary, use repeating decimal notation.

27) $\frac{4}{15}$

27) _____

A) $0.\overline{26}$

B) 0.26

C) $0.2\overline{6}$

D) $0.\overline{266}$

Simplify the expression.

28) $\frac{0.169 - 0.769}{-0.5}$ 28) _____

A) -1.107

B) 1.2

C) 0.12

D) -12

29) $(6.5 + 1.8)(4.9 - 1.5)$ 29) _____

A) 28.22

B) 39.17

C) 53.12

D) 13.82

Find the value of the expression. Give the result as a decimal.

30) $\frac{1}{8}(-9.6 - 3.8)$ 30) _____

A) -1.675

B) -5

C) -107.2

D) -24.12

Solve the equation.

31) $1.5x - 3.1 = 0.8x + 2.15$ 31) _____

A) -0.133

B) 7.5

C) 7.575

D) 7.51

Find the mean. If necessary, round to one decimal place.

32) 25, 49, 61, 44, 137, 89 32) _____

A) 67.5

B) 67

C) 68

D) 81

Write the rate as a unit rate.

33) An animal can move at 1380 feet per minute. Write this rate in feet per second. 33) _____

A) 83 ft/sec

B) $\frac{23}{60}$ ft/sec

C) 82,800 ft/sec

D) 23 ft/sec

Solve the proportion for the given variable. Round the solution where indicated.

34) $\frac{z}{17} = \frac{36}{20}$ 34) _____

A) $\frac{612}{5}$

B) $\frac{153}{20}$

C) $\frac{153}{5}$

D) $\frac{5}{153}$

Solve.

35) It takes Kathy 26 minutes to type and spell check 14 pages of a manuscript. Find how long it takes her to type and spell check 77 pages. Round to the nearest whole number if necessary. 35) _____

A) 143 min

B) 26 min

C) 41 min

D) 2002 min

Write the percent as a decimal.

36) 0.6% 36) _____

A) 0.06

B) 0.6

C) 0.006

D) 0.007

Write the percent as a fraction or mixed number in simplest form.

37) 6.5% 37) _____

A) $6\frac{1}{20}$

B) $6\frac{1}{2}$

C) $\frac{65}{100}$

D) $\frac{13}{200}$

Translate to an equation and solve.

38) 78 is what percent of 60? 38) _____

A) 130%

B) 1.3%

C) 1300%

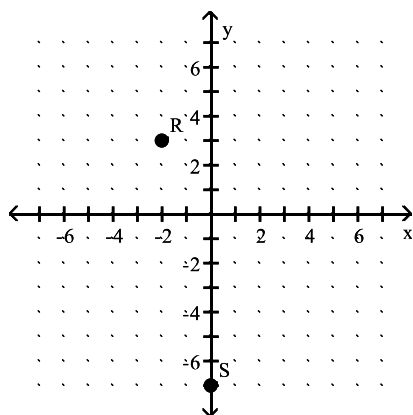
D) 13%

Solve. If necessary, round percents to the nearest tenth, dollar amounts to the nearest cent, and all other numbers to the nearest whole.

- 39) One day 6 nurses were sick with the flu. If this were 30% of the total number of nurses, how many nurses were there altogether? 39) _____
- A) 180 nurses B) 1800 nurses C) 200 nurses D) 20 nurses

Find the x- and y-coordinates of each labeled point.

- 40) 40) _____



- A) $R(-2, 3); S(0, -7)$ B) $R(3, -2); S(-7, 0)$
 C) $R(3, -2); S(0, -7)$ D) $R(-2, 3); S(-7, 0)$

Answer Key

Testname: F13M112FINAL_SAMPLEA

- 1) D
- 2) B
- 3) C
- 4) B
- 5) A
- 6) B
- 7) C
- 8) A
- 9) C
- 10) D
- 11) C
- 12) A
- 13) C
- 14) D
- 15) D
- 16) B
- 17) C
- 18) C
- 19) B
- 20) B
- 21) B
- 22) D
- 23) B
- 24) C
- 25) A
- 26) D
- 27) C
- 28) B
- 29) A
- 30) A
- 31) B
- 32) A
- 33) D
- 34) C
- 35) A
- 36) C
- 37) D
- 38) A
- 39) D
- 40) A