

MAT 095 MODULE A MOCK TEST

Name _____

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

Simplify the expression.

1) $2[6 + 8(8 + 7)]$ 1) _____

- A) 252 B) 416 C) 132 D) 420

2) $\frac{20 + (6)(3)}{2[8 \div (2 + 2)]}$ 2) _____

- A) $\frac{33}{2}$ B) $\frac{19}{2}$ C) undefined D) $\frac{1}{2}$

Evaluate the expression for the given replacement values.

3) $2x + y$ for $x = 3$ and $y = -12$ 3) _____

- A) -6 B) 18 C) -9 D) 15

Write the phrase as an algebraic expression and simplify if possible. Let x represent the unknown number.

4) The difference of eighteen and a number, divided by four. 4) _____

- A) $\frac{18 - x}{4}$ B) $\frac{x - 18}{4}$ C) $\frac{x}{4} - 18$ D) $18 - \frac{x}{4}$

Solve the equation. Don't forget to first simplify each side of the equation, if possible.

5) $-7(k - 5) - (-8k - 9) = 6$ 5) _____

- A) 38 B) - 38 C) 50 D) - 2

Solve the equation.

6) $\frac{f}{2} - 5 = 1$ 6) _____

- A) 8 B) -12 C) 12 D) -8

Solve.

7) The code to unlock a safety deposit box is three consecutive odd integers whose sum is 75. Find the integers. 7) _____

- A) 25, 26, 27 B) 24, 26, 28 C) 25, 27, 29 D) 23, 25, 27

Solve the problem.

- 8) A 12-ft. board is cut into 2 pieces so that one piece is 8 feet longer than 3 times the shorter piece. If the shorter piece is x feet long, find the lengths of both pieces. 8) _____

A) shorter piece: 28 ft; longer piece: 36 ft
C) shorter piece: 6 ft; longer piece: 36 ft

B) shorter piece: 1 ft; longer piece: 11 ft
D) shorter piece: 24 ft; longer piece: 44 ft

Solve the equation for the indicated variable.

- 9) $V = \frac{1}{3}Ah$ for h 9) _____

A) $h = \frac{V}{3A}$

B) $h = \frac{A}{3V}$

C) $h = \frac{3V}{A}$

D) $h = \frac{3A}{V}$

Solve. Round to the nearest hundredth, if necessary.

- 10) 90 is 10% of what number? 10) _____

A) 9

B) 9000

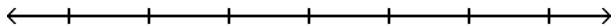
C) 90

D) 900

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Solve the inequality.

- 11) $-6(5y - 5) < -36y + 18$ 11) _____



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

Solve. Round answers to the nearest cent.

- 12) A store is advertising 40% off sale on everything in the store. Find the sale price of a necklace that regularly sells for \$1600. 12) _____

A) \$64.00

B) \$960.00

C) \$640.00

D) \$1536.00

Use the power rule and the power of a product or quotient rule to simplify the expression.

- 13) $\left(\frac{-4xy^3}{z^8}\right)^3$ 13) _____

A) $-\frac{12xy^9}{z^{24}}$

B) $-\frac{64x^3y^3}{z^8}$

C) $\frac{64x^3y^9}{z^8}$

D) $-\frac{64x^3y^9}{z^{24}}$

Simplify the expression.

- 14) $(-6x)^0$ 14) _____

A) 1

B) -1

C) -6

D) 0

Simplify the expression. Write the result using positive exponents only.

15) $\frac{p^2}{p^{-3}}$

15) _____

A) $\frac{1}{p^6}$

B) p^5

C) p^6

D) $\frac{1}{p^5}$

16) $(-5x^4y^{-5})(2x^{-1}y)$

16) _____

A) $-10x^3y^6$

B) $\frac{-10x^3}{y^4}$

C) $\frac{-3x^3}{y^4}$

D) $\frac{-10x^5}{y^6}$

Write the number in scientific notation.

17) 0.000447

17) _____

A) 4.47×10^{-4}

B) 4.47×10^{-5}

C) 4.47×10^{-3}

D) 4.47×10^4

Add or subtract as indicated.

18) $(2x^6 - 2x^3y - 5y^2) - (8x^6 + 3x^3y + 12y^2)$

18) _____

A) $-6x^6 - 5x^3y - 17y^2$

B) $-28x^{10}y^3$

C) $-6x^6 + 6x^3y + 7y^2$

D) $-6x^6 - 5x^3y + 7y^2$

Find the product.

19) $(3x - 4)(5x - 9)$

19) _____

A) $8x^2 - 13$

B) $15x^2 + 36$

C) $15x^2 - 47x + 36$

D) $15x^2 - 7x + 36$

20) $(4x + 3)^2$

20) _____

A) $4x^2 + 24x + 9$

B) $16x^2 + 9$

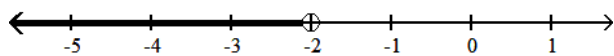
C) $16x^2 + 24x + 9$

D) $4x^2 + 9$

Answer Key

Testname: MODULE A MOCK TEST

- 1) A
- 2) B
- 3) A
- 4) A
- 5) B
- 6) C
- 7) D
- 8) B
- 9) C
- 10) D
- 11) $\{y \mid y < -2\}$



- 12) B
- 13) D
- 14) A
- 15) B
- 16) B
- 17) A
- 18) A
- 19) C
- 20) C