

Name \_\_\_\_\_

**MULTIPLE CHOICE. Choose the one alternative that best answers the question.**

**Determine whether the given number is a solution to the equation.**

1)  $3y + 4 = 16$ ; -4

1) \_\_\_\_\_

A) yes

B) no

2)  $9t + 4 = -86$ ; -10

2) \_\_\_\_\_

A) yes

B) no

**Solve the equation using the addition or subtraction property of equality.**

3)  $z - 9 = 10$

3) \_\_\_\_\_

A) {1}

B) {-1}

C) {19}

D) {-19}

4)  $9.6 = -2.7 + y$

4) \_\_\_\_\_

A)  $y = 12.3$

B)  $y = -12.3$

C)  $y = 6.9$

D)  $y = -6.9$

**Solve the equation using the multiplication or division property of equality.**

5)  $-4m = 38$

5) \_\_\_\_\_

A)  $\left\{-\frac{19}{2}\right\}$

B)  $\left\{-\frac{2}{19}\right\}$

C) {42}

D) {-152}

6)  $-24 = -0.4x$

6) \_\_\_\_\_

A)  $\{-23.6\}$

B)  $\{6\}$

C)  $\{60\}$

D)  $\{-24.4\}$

7)  $\frac{y}{7} = -5$

7) \_\_\_\_\_

A)  $y = -35$

B)  $y = -12$

C)  $y = 2$

D)  $y = -\frac{5}{7}$

8)  $\frac{2}{3}t = -\frac{1}{5}$

8) \_\_\_\_\_

A)  $t = -\frac{3}{10}$

B)  $t = -\frac{2}{15}$

C)  $t = -\frac{13}{15}$

D)  $t = \frac{3}{10}$

**Solve the equation.**

9)  $4x + 11 = 3$

9) \_\_\_\_\_

A)  $\{2\}$

B)  $\{-2\}$

C)  $\left\{\frac{7}{2}\right\}$

D)  $\left\{\frac{1}{5}\right\}$

10)  $5x - 4x + 6 = 7 - 6$

10) \_\_\_\_\_

A)  $-\frac{5}{7}$

B)  $-5$

C)  $1$

D)  $\frac{1}{7}$

11)  $5n - 8 = 11n + 5$

11) \_\_\_\_\_

A)  $n = -\frac{1}{2}$

B)  $n = \frac{13}{16}$

C)  $n = -\frac{13}{6}$

D)  $n = \frac{13}{6}$

12)  $-0.5y + 1.3 = -0.2 - 0.2y$

12) \_\_\_\_\_

A)  $y = 0.5$

B)  $y = 7$

C)  $y = 5$

D)  $y = 3$

13)  $4(2x + 18) - 44 = 112 - 2(5x - 3)$

13) \_\_\_\_\_

A) {all real numbers}

B) {5}

C)  $\left\{\frac{13}{3}\right\}$

D)  $\left\{\frac{73}{9}\right\}$

14)  $\frac{1}{2}(2n - 5) + \frac{4}{3} = \frac{5n}{6} - \frac{3}{2}$

14) \_\_\_\_\_

A)  $n = \frac{5}{3}$

B)  $n = -\frac{11}{6}$

C)  $n = -2$

D)  $n = 13$

**Write an algebraic equation to represent the English sentence. (Let  $x$  represent the unknown number.) Then solve the equation.**

15) The sum of four and a number is negative nineteen.

15) \_\_\_\_\_

A)  $x + 4 = -19; x = -23$

B)  $4 + x = 19; x = -15$

C)  $4x = 19; x = -19/4$

D)  $4 - x = -19; x = 23$

16) The product of negative one-half and a number is twelve. 16) \_\_\_\_\_

A)  $-\frac{1}{2}x = 12; x = -6$

B)  $-\frac{1}{2} - x = 12; x = -\frac{25}{2}$

C)  $-\frac{1}{2} + x = 12; x = \frac{25}{2}$

D)  $-\frac{1}{2}x = 12; x = -24$

**Answer the question.**

17) Marcus made \$24 more than three times Joel's weekly salary. If  $x$  represents Joel's weekly salary, write an expression for Marcus' weekly salary. 17) \_\_\_\_\_

A)  $3(x + 24)$

B)  $24x + 3$

C)  $24(3 + x)$

D)  $3x + 24$

18) A 58-inch pipe must be cut into three pieces. The longest piece will be twice as long as the shortest piece, and the medium-sized piece will be 6 inches longer than the shortest piece. Find the length of shortest piece of pipe. 18) \_\_\_\_\_

A) 7 inches

B) 13 inches

C) 25 inches

D) 19 inches

19) The sum of two consecutive even integers is 118 Find the least of the two integers. 19) \_\_\_\_\_

A) 60

B) 59

C) 58

D) 56

**Solve the inequality. Graph the solution set and write the solution set in interval notation.**

20)  $t + 5 \geq 26$  20) \_\_\_\_\_



A)  $[21, \infty)$

B)  $(-\infty, -21]$

C)  $(-\infty, 31)$

D)  $[31, \infty)$

21)  $-60m + 77 > 11$

21) \_\_\_\_\_



A)  $\left(-\infty, \frac{11}{10}\right)$

B)  $\left(-\infty, -\frac{22}{15}\right)$

C)  $\left(-\frac{22}{15}, \infty\right)$

D)  $\left(\frac{11}{10}, \infty\right)$

**Solve the inequality. Write the solution set in interval notation.**

22)  $2 + 5z < 4z + 1$

22) \_\_\_\_\_

A)  $(-\infty, -1]$

B)  $(-\infty, -1)$

C)  $(-\infty, 3)$

D)  $(-1, \infty)$

23)  $-2(8y - 7) + y \geq 2y - (-12 + y)$

23) \_\_\_\_\_

A)  $\left[-\frac{5}{8}, \infty\right)$

B)  $\left(-\infty, \frac{1}{8}\right)$

C)  $\left(-\infty, \frac{1}{8}\right]$

D)  $\left(\frac{1}{8}, \infty\right)$

**Solve the problem.**

24) An electronics store reduces the price of a lap-top computer by 20% to \$760.00. Find the original price.

24) \_\_\_\_\_

A) \$633.33

B) \$608.00

C) \$950.00

D) \$912.00

25) Find the sale price on a cell phone that regularly sells for \$50.00 which is marked down 20%.

25) \_\_\_\_\_

A) \$41.67

B) \$35.00

C) \$40.00

D) \$30.00

Write the statement as a ratio in lowest terms.

26) Write the statement as a ratio in lowest terms.

10 boys to 18 girls

26) \_\_\_\_\_

A)  $\frac{9}{5}$

B)  $\frac{5}{9}$

C)  $\frac{10}{18}$

D)  $\frac{18}{10}$

Solve the proportion.

27)  $\frac{5}{7} = \frac{z}{2}$

27) \_\_\_\_\_

A)  $z = \frac{5}{14}$

B)  $z = \frac{1}{14}$

C)  $z = \frac{10}{7}$

D)  $z = 10$

28)  $\frac{8}{z+3} = \frac{-3}{5z}$

28) \_\_\_\_\_

A)  $z = -8, z = 3$

B)  $z = 0, z = -3$

C)  $z = \frac{23}{3}$

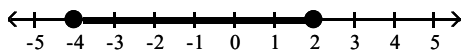
D)  $z = -\frac{9}{43}$

Graph the inequality.

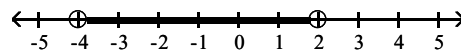
29)  $-4 < y < 2$

29) \_\_\_\_\_

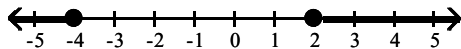
A)



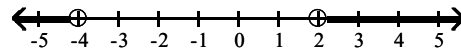
B)



C)



D)



Solve the inequality. Graph the solution set and write the solution set in interval notation.

30)  $-37 \leq 5p - 17 \leq 18$

30) \_\_\_\_\_



A)  $\left[-\frac{54}{5}, \frac{1}{5}\right]$

B)  $\left(-\infty, -\frac{54}{5}\right] \cup \left[\frac{1}{5}, \infty\right)$

C)  $[-4, 7]$

D)  $(-\infty, -7] \cup [4, \infty)$

Answer Key

Testname: MATH-0361 TEST 2 REVIEW

- 1) B
- 2) A
- 3) C
- 4) A
- 5) A
- 6) C
- 7) A
- 8) A
- 9) B
- 10) B
- 11) C
- 12) C
- 13) B
- 14) C
- 15) A
- 16) D
- 17) D
- 18) B
- 19) C
- 20) A
- 21) A
- 22) B
- 23) C
- 24) C
- 25) C
- 26) B
- 27) C
- 28) D
- 29) B
- 30) C