

Name:

Date: / / 2023



Grade/ Section: ()

Diagnostic Test**Mathematics****Evaluate each expression.**

1) $3 - (-5)$

- A) 8 B) 9
C) 3 D) 16

2) $(-49) - (-37) - (-50)$

- A) 38 B) 16
C) 77 D) 0

Simplify each expression.

3) $(5 - m) - (3m - 3)$

- A) $-6m + 7$ B) $-4m + 8$
C) $-4m + 7$ D) $-6m + 12$

4) $(14m^5 + 11 - m^4) + (-m^4 - 14 + 2m^5)$

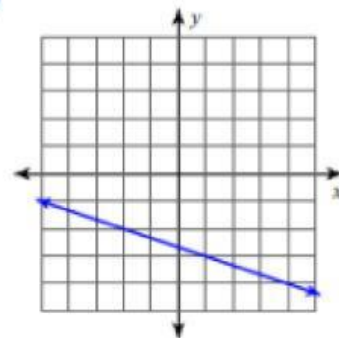
- A) $16m^5 - 15m^4 + 10$
B) $16m^5 - 2m^4 - 3$
C) $16m^5 - 2m^4 + 10$
D) $16m^5 - 15m^4 + 4$

Find the slope of each line.

5) $y = -2x - 4$

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

6)



- A) $\frac{1}{3}$ B) -3
C) 3 D) $-\frac{1}{3}$

Solve each equation for the indicated variable.

7) $z = -6x$, for x

- A) $x = \frac{z}{6}$ B) $x = -\frac{6}{z}$
C) $x = \frac{6}{z}$ D) $x = -\frac{z}{6}$

8) $m + a = n - p$, for a

- A) $a = -m - n + p$
B) $a = -m + n - p$
C) $a = m - n + p$
D) $a = p + n + m$

Solve each equation.

9) $-12 = b - 6 + b$

- A) $\{1\}$ B) $\{-3\}$
C) $\{-2\}$ D) $\{-6\}$

10) $-(3n + 5) = -8 - 6n$

- A) $\{-8\}$ B) $\{-9\}$
C) $\{-11\}$ D) $\{-1\}$

Solve each proportion.

11) $\frac{4}{5} = \frac{7}{6m}$

- A) $\{6.3\}$ B) $\{6\}$
C) $\{1.46\}$ D) $\{5.4\}$

12) $\frac{n}{2} = -\frac{10}{9}$

- A) $\{-4.33\}$ B) $\{-4.7\}$
C) $\{6.7\}$ D) $\{-2.22\}$

Solve each equation.

13) $|2 + x| = 1$

- A) $\{-1\}$ B) $\{5, -5\}$
C) $\{-1, -3\}$ D) $\{6, -4\}$

14) $k + 2 = -4$

- A) $\{-2\}$ B) $\{-8\}$
C) $\{1\}$ D) $\{-6\}$

Find the median for each data set.

15) Annual Household Income

7,150 8,300 11,550 18,700
19,350 22,550 24,550 29,900
31,650

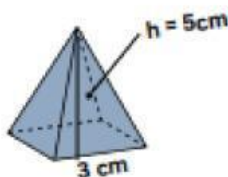
- A) 11,300 B) 21,900
C) 19,350 D) 23,250

16) What is the area of the circle, if the radius is 3 cm.?

- A) 28.26 cm^2
B) 9 cm^2
C) 18 cm^2
D) 27 cm^2

17) What is the volume of the square pyramid below?

- A) 28.26 cm^3
B) 15 cm^3
C) 30 cm^3
D) 45 cm^3



18) What is the surface area of the cube below?

- A) 16 cm^2
B) 32 cm^2
C) 48 cm^2
D) 96 cm^2

