

Simplify the expression.

1. $7 + 2 - 5$

$$\begin{array}{r} 9 - 5 \\ \hline 4 \end{array}$$

2. $3 - 5.8 - 9.6 + 4.4 - 2$

$$-10$$

3. $3^2(32 - 20) \div 4$

$$\begin{array}{r} 9(12) \div 4 \\ \hline 27 \end{array}$$

4. $5 - 2(3x + 9)$

$$\begin{array}{r} 5 - 6x - 18 \\ \hline -6x - 13 \end{array}$$

5. $|18 - 6|$

$$|12| = 12$$

6. $1.7m^2 + 6.5n - 4n + 2.5m^2 - n$

$$\begin{array}{l} (1.7 + 2.5)m^2 + 6.5n - 4n - n \\ 4.2m^2 + 1.5n \end{array}$$

7. Evaluate the formula $V = \frac{Bh}{3}$ for $B = 9 \text{ in.}^2$ and $h = 32 \text{ in.}$

$$V = \frac{9(32)}{3} = 96 \text{ in}^3$$

8. The product of two negative numbers is _____ positive.

 a always b sometimes c Never

9. $-12 \div (-2)$

 a 24 b -6 c -24 d 610. If a is a negative number, then $a\left(\frac{1}{a}\right)$ is _____ equal to -1 . a always b sometimes c Never

Equals positive 1

11. Evaluate $\frac{a}{b}$ for $a = -6$ and $b = -2$.

$$\frac{-6}{-2} = 3$$

 a 12 b 3 c $\frac{4}{3}$ d -12

12. Use the Distributive Property to find the price of 7 CDs that cost \$14.99 each.

 a \$105.00 b \$98.00 c \$104.93 d \$105.70

$$\begin{array}{l} 7(15 - 0.01) = \\ 104.93 \end{array}$$

13. For every real number x , y , and z , the statement $(x - y)z = xz - yz$ is _____ true. a always b sometimes c never

solve the equation.

14. $3x + 5 = 32$
 $\begin{array}{r} -5 \\ -5 \\ \hline 3x = 27 \\ \hline \frac{3}{3} \quad \frac{3}{3} \\ \hline x = 9 \end{array}$

15. $-6 = \frac{x}{8} + 4$
 $\begin{array}{r} -4 \\ -4 \\ \hline -10 = \frac{x}{8} \end{array}$

$x = -80$

16. Nacho is reading a 193-page book. He has read three pages more than one fourth of the number of pages he hasn't yet read.

a. How many pages has he not yet read?

$\frac{1}{4}(193-x) + 3 = x$

$193-x = 4(x-3)$

$193-x = 4x-12$

$205 = 5x$

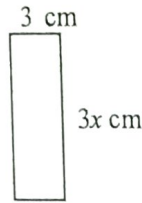
$x = 41$ pages read

b. Estimate how many days it will take James to finish the book if he reads about 8 pages per day.

$193-41 = 152$

$\frac{152}{8} = 19$ days

17. The perimeter of the rectangle is 24 cm. Find the value of x.



$3 + 3 + 3x + 3x = 24$

$6 + 6x = 24$

$6x = 18$

$x = 3$

Solve the proportion.

18. $\frac{2}{10} = \frac{11}{x}$

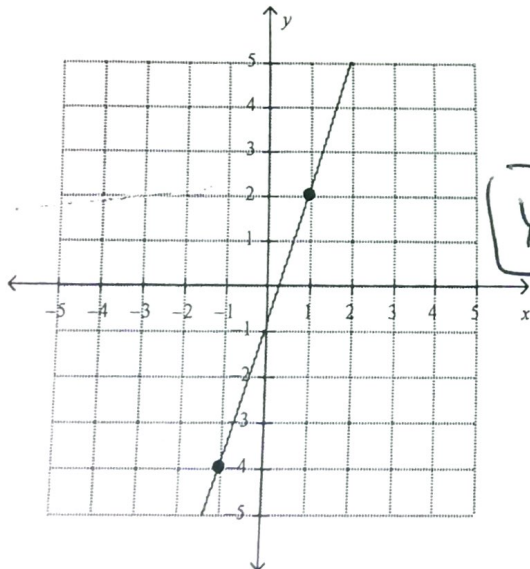
$2x = 110$

$x = 55$

19. What is 10% of 118?

$118 \cdot 0.10 = 11.8$

20. Write the slope-intercept form of the equation for the line. 21. What is the solution of the system of equations?



$m = \frac{6}{2} = 3$

$y = 3x - 1$

$y = 3x + 7$

$y = x - 9$

- Graph
- Elimination
- Substitution

a. (-1, -10)

b. (-17, -8)

c. (4, 19)

d. (-8, -17)