

Solve the following equations.

1) $-18 = m - 30$

1) _____

2) $45 = -9k$

2) _____

3) $\frac{-3x}{2} = \frac{-9}{7}$

3) _____

4) $59 = 6x + 5$

4) _____

5) $-4y - 2 = -9 - 7y$

5) _____

6) $4y - 8 + y = 4 + 5y - 4y$

6) _____

7) $-4.7q + 1.6 = -39.2 - 1.3q$

7) _____

8) $\frac{4}{5} + \frac{1}{6}x = 7$

8) _____

9) $-7x + 2(-2x - 4) = -15 - 4x$

9) _____

$$10) (y - 11) - (y + 6) = 8y$$

10) _____

$$11) 5(3x - 1) = 20$$

11) _____

$$12) \frac{2}{3}(x - 6) = 8$$

12) _____

Solve the formula for the indicated letter.

$$13) P = 2L + 2W \text{ for } W$$

13) _____

$$14) 4x - 3y = 9 \text{ for } y$$

14) _____

$$15) x = \frac{w + y + z}{5} \text{ for } y$$

15) _____

Solve each problem.

16) If 4 is added to a number and the sum is doubled, the result is 18 less than the number. Find the number.

16) _____

Translate to the equation that would be used to solve the problem.

17) The sum of three consecutive odd integers is 228. Find the integers.

17) _____

Solve the inequality.

18) $6a + 10 \geq 7a - 1$ Write the solution in set builder notation. 18) _____

19) $9 + 6y \geq 69$ Graph the solution 19) _____

20) $-3(4y - 2) < -15y - 3$ Write the solution in interval notation. 20) _____

Solve the following problems.

21) At many colleges, the number of "full-time-equivalent" students f is given by 21) _____

$$f = \frac{n}{15},$$

where n is the total number of credits for which students enroll in a given semester. Determine the number of full-time-equivalent students on a campus in which students registered for a total of 23,700 credits.

22) A rectangular parking lot has a perimeter of 483 meters. The width is 3 meters more than twice the length. Find the width. 22) _____

23) The second angle of a triangle is 20 degrees less than the first angle. The third angle is one half the first. Find the measure of the third angle. 23) _____

24) Translate to an equation. Do not solve. 24) _____
The product of seven and a number is the same as the difference of the number and eight.

25) Translate to an equation. Do not solve. 25) _____
Three numbers are consecutive integers. The sum of the first and third is four more than the second.

Answers Chapter 2 Practice Test

1) 12

2) -5

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

4) 9

5) $\frac{-7}{3}$

6) 3

7) 12

8) $\frac{186}{5}$

9) 1

10) $\frac{-17}{8}$

11) $\frac{5}{3}$

12) 18

13) $W = \frac{P - 2L}{2}$

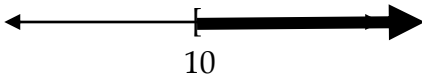
14) $y = \frac{4}{3}x - 3$

15) $y = 5x - w - z$

16) -26

17) $n + (n + 2) + (n + 4) = 228$

18) $\{a \mid a \leq 11\}$

19) A number line diagram showing a ray starting at 10 and extending to the right. The number 10 is written below the line, and a thick black arrow points to the right from a tick mark at 10.

20) $(-\infty, -3)$

21) 1580 full-time equivalent students

22) 162 meters

23) 40 degrees

24) $7n = n - 8$

25) $x + x + 2 = x + 1 + 4$