

2.12 Solving Linear Equations One Variable 3

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

Write the sentence as an equation. Use  $x$  to represent "a number."

1) Seven subtracted from a number is 18. 1) \_\_\_\_\_  
 A)  $7 + x = 18$       B)  $7 - x = 18$       C)  $x - 7 = 18$       D)  $18 - 7 = x$

2) Twelve subtracted from four times a number is equal to 0. 2) \_\_\_\_\_  
 A)  $4x - 12 = 0$       B)  $4(x - 12) = 0$       C)  $12 - 4x = 0$       D)  $12(4 - x) = 0$

3) The quotient of 90 and a number yields 9. 3) \_\_\_\_\_  
 A)  $\frac{x}{90} = 9$       B)  $90 - x = 9$       C)  $90x = 9$       D)  $\frac{90}{x} = 9$

4) A number added to -20 is -26. 4) \_\_\_\_\_  
 A)  $x - 26 = -20$       B)  $-20 + x = -26$       C)  $x = -20 + 26$       D)  $-20 - 26 = x$

Write the sentence as an equation.

5) The product of -5 and -43 amounts to 215. 5) \_\_\_\_\_  
 A)  $-5 - 43 = 215$       B)  $-5(-43) = 215$       C)  $\frac{-5}{-43} = 215$       D)  $5(43) = 215$

6) The quotient of -130 and 10 is equal to -13. 6) \_\_\_\_\_  
 A)  $-130 + 10 = -13$       B)  $-130(10) = -13$       C)  $-130 - 10 = -13$       D)  $\frac{-130}{10} = -13$

7) The difference of -57 and 44 yields -101. 7) \_\_\_\_\_  
 A)  $57 - 44 = 101$       B)  $-57 - 44 = 101$       C)  $57 + 44 = 101$       D)  $-57 - 44 = -101$

8) The sum of -40 and 30 is equal to -10. 8) \_\_\_\_\_  
 A)  $-40 - 30 = -10$       B)  $40 + 30 = -10$       C)  $-40 + 30 = -10$       D)  $40 + 30 = 10$

Solve the equation.

9)  $4(5x - 1) - 4 = 14x - 2$  9) \_\_\_\_\_  
 A) 1      B) 36      C) -1      D) 6

10)  $2(y + 2) = 3(y - 3)$  10) \_\_\_\_\_  
 A) -13      B) -5      C) 13      D) 5

11)  $4 + 27 = x + 8$  11) \_\_\_\_\_  
 A) 23      B) -39      C) -23      D) 39

12)  $\frac{x}{-8} - 26 = 0$  12) \_\_\_\_\_  
 A) 208      B)  $\frac{13}{4}$       C)  $-\frac{13}{4}$       D) -208

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- 13)  $-49 = -6x - 7$  13) \_\_\_\_\_  
A) -32 B) 7 C) 15 D) -36
- 14)  $-8 + 22 = 12x - 5 - 11x$  14) \_\_\_\_\_  
A) 9 B) 25 C) -9 D) 19
- 15)  $3^3 = x + 5^4$  15) \_\_\_\_\_  
A) -652 B) 652 C) -598 D) 598
- 16)  $4x + 4 = 5(x - 5)$  16) \_\_\_\_\_  
A) -29 B) 29 C) 21 D) -21
- 17)  $2(7x - 4) = 18x$  17) \_\_\_\_\_  
A) -1 B) -2 C) 1 D) 2
- 18)  $9x - 11x = 14 - 16$  18) \_\_\_\_\_  
A) -2 B) 1 C) 2 D) -1
- 19)  $-8x + 3 = -5x - 6$  19) \_\_\_\_\_  
A) 1 B) 3 C) -1 D) -3
- 20)  $x - 15 = -5 - 26$  20) \_\_\_\_\_  
A) 16 B) -46 C) 46 D) -16
- 21)  $3(x - 4) = 9$  21) \_\_\_\_\_  
A) -1 B) 1 C) -7 D) 7
- 22)  $\frac{n}{-9} = 3 - (-4)$  22) \_\_\_\_\_  
A) -9 B) 9 C) 63 D) -63
- 23)  $6y + 30 = 5y + 15$  23) \_\_\_\_\_  
A) -16 B) 7 C) -15 D) -14
- 24)  $7(6x - 2) = 40x$  24) \_\_\_\_\_  
A) -7 B) 1 C) 7 D) -1
- 25)  $|-17| + 9^2 = 40y - |-32| - 39y$  25) \_\_\_\_\_  
A) -66 B) 66 C) 130 D) -130
- 26)  $\frac{y}{8} = (-8)^2 - |29| + (-5)^2$  26) \_\_\_\_\_  
A) 480 B) 944 C) -80 D) -480

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27)  $\frac{x}{-13} = 4^5 - 6^6$  27) \_\_\_\_\_  
 A) 593,216                      B) -593,216                      C) 97,760                      D) -97,760

28)  $12 - 7x = -4x$  28) \_\_\_\_\_  
 A) -4                      B) 4                      C) 36                      D) -36

Write the phrase as a variable expression. Use x to represent "a number."

29) the difference of Four and a number 29) \_\_\_\_\_  
 A)  $x - 4$                       B)  $4x$                       C)  $\frac{4}{x}$                       D)  $4 - x$

30) Twice a number, decreased by 44 30) \_\_\_\_\_  
 A)  $x - 88$                       B)  $2(x - 44)$                       C)  $2 + x - 44$                       D)  $2x - 44$

31) The quotient of 44 and the product of a number and -6 31) \_\_\_\_\_  
 A)  $-264x$                       B)  $\frac{44}{-6x}$                       C)  $\frac{-6x}{44}$                       D)  $\frac{44}{x} - 6$

32) The quotient of 4 and a number, added to -17 32) \_\_\_\_\_  
 A)  $-17 + \frac{4}{x}$                       B)  $4 + x + (-17)$                       C)  $-17 + \frac{x}{4}$                       D)  $\frac{4}{x + (-17)}$

Solve.

33) The sum of 2, 5, and a number amounts to 13. Find the number. 33) \_\_\_\_\_  
 A) 6                      B) 20                      C) 16                      D) 10

34) The product of a number and -4 is ten times the sum of that number and -28. Find the number. 34) \_\_\_\_\_  
 A) 20                      B) -4                      C) 4                      D) -20

35) Ben sold his used lawn tractor and accessories for \$873. If he received eight times as much money for the lawn tractor as he did for the accessories, find how much money he received for the lawn tractor. 35) \_\_\_\_\_  
 A) \$107                      B) \$776                      C) \$6984                      D) \$97

36) The product of 3 and a number equals 30. Find the number. 36) \_\_\_\_\_  
 A) 11                      B) 27                      C) 10                      D) 90

Answer Key

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