

Chapter 2 Section 7: Order of Operations

Problems

Use the rules for the order of operations to simplify each expression.

1. $3 \times 5 + 7 \times 8 =$ _____
2. $4 - 9 + 6 \times 2 =$ _____
3. $18 \div 9 + 2 \times 6 =$ _____
4. $63 \div 21 \times 3 + 97 =$ _____
5. $14 + 7 \times 6 \div 2 + 8 =$ _____
6. $85 \div 17 \times 7 - 16 =$ _____
7. $93 + 6 \div 2 \times 4 - 18 =$ _____
8. $47 + 128 \div 32 \times (-9) =$ _____
9. $63 \div 9 - 7 =$ _____
10. $72 \times 8 \div 9 =$ _____
11. $72 \times 9 \div 8 =$ _____
12. $40 - 163 \times 0 =$ _____
13. $70 \div 7 + 70 \div 10 =$ _____
14. $70 \div 10 - 70 \div 7 =$ _____
15. $5 \times 3 \div (15 + 9) =$ _____
16. $26 \div 13 \times 2 - 17 =$ _____
17. $26 \div 2 \times 13 - 17 =$ _____
18. $17 - 26 \div 13 \times 2 =$ _____
19. $17 - 26 \div 2 \times 13 =$ _____
20. $18 \div 9 + 3 \times 6 =$ _____
21. $3 \times (6 + 4) \div 6 =$ _____
22. $\frac{2 \cdot (5 - 1) + 3 \cdot 7}{4 \cdot (6 - 3)} =$ _____
23. $18 \div 6 + 9 \times 3 =$ _____
24. $5 \times 4 + 2 + (-8) \div 4 - 6 =$ _____
25. $96 \div 32 \times 3 \div 9 =$ _____
26. $107 + (-108) \div (-27) - 18 =$ _____
27. $49 \times 7 \div (-7) + 18 - (-16) =$ _____
28. $\frac{8(20 - 15)}{4 \cdot 5 \cdot 2} =$ _____
29. $18 \times 2 \div 9 \times 3 =$ _____
30. $18 \div 9 \times 2 \times 3 =$ _____
31. $48 \div 32 \times 4 \div 3 =$ _____
32. $45 \div 3 \div 3 \times 9 =$ _____
33. $1296 \div 36 + 6 \times (-9) - 36 =$ _____
34. $(-17) + (-18) \div 9 \times (-2) =$ _____
35. $36 + (-40) \times 10 \div 4 - 12 =$ _____
36. $(-52) \div (-26) \div 2 \times (-13) =$ _____
37. $6(3 + 7) =$ _____
38. $(8 + 4) \div (6 - 4) =$ _____
39. $\frac{1}{2}(14.2 - 8.4) =$ _____

40. $2 + 5[4 + (3 - 7)] =$ _____

41. $75 - 4[5 - 3(12 + 2)] =$ _____

42. $54 + 3[18 - 2(17 - 4)] + 9 =$ _____

43. $-2[(-1 + 8) + (12 + 19)] =$ _____

44. $2[(3 + 4) + (2 - 7)] =$ _____

45. $3(-3) - 2[4 + (5 - 4(-3))] - 17 =$ _____

In Problems 46-50, insert parentheses so that the result of the indicated operations will be the given answer.

46. $4 + 4 + 4 \times 4$ Answer: 36

47. $4 + 4 + 4 \times 4$ Answer: 48

48. $6 + 7 \times 3 - 1$ Answer: 38

49. $12 \div 4 \times 3 + 15$ Answer: 16

50. $5 \times 1 - 6 + 12 \div 2 \times 3$ Answer: -23

In Problems 51-79, use the rules for the order of operations to simplify each item. (Hint: $3c + 4c = 7c$. There are 3c's plus 4 more c's, so there are 7c's in total.)

51. $3c + (2c + 4)$

52. $17n + (4n + 5)$

53. $12d + (17 - 13d)$

54. $25q + (14 - 3q)$

55. $49z - (40z + 65)$

56. $83h - (27h - 16)$

57. $12k - (13 - 13k)$

58. $29n - (59 - 28n)$

59. $18r - (s + 18r)$

60. $23t - (w + 23t)$

61. $\frac{4}{5}(20p + 15)$

62. $22l - (19m + 22l)$

63. $\frac{2}{7}(m + 28)$

64. $-16e - (16e + 14f)$

65. $1.3(v + 1.6) - 3.9(v + 0.8)$

66. $8[3(4b - 17) + 6b]$

67. $5[-2(19 - 8x) + 37]$

68. $-[(x + 3) + 2(x - 12) + 8]$

69. $-16[42-3(c+2)]-16$

70. $5[(y-37)-5(y+37)]$

71. $83d-[87+3(18d-46)+5]-12$

72. $18-\frac{7x+3x}{2}$

73. $36-\frac{8a-14a}{3}$

74. $29b+\frac{63b-17b}{23}+16b$

75. $34x-\frac{14x-47x}{11}-8(3x+4)$

76. $\frac{4r+20s}{4}$

77. $\frac{15m-5n}{5}$

78. $-\left[18n+12\left(\frac{4n-8n}{16}\right)+5m\right]$

79. $\frac{2}{3}\cdot\frac{4m-19m}{6}-\frac{7m}{9}$
