Practice 1-3

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Mixed Exercises

Simplify each expression.

1. $4 + 6(8)$

2. $\dfrac{4(8 - 2)}{3 + 9}$

3. $21 \times 3 + 2$

4. $40 \div 5(2)$

5. $2.7 + 3.6 \times 4.5$

6. $3[4(8 - 2) + 5]$

7. $4 + 3(5 - 2)$

8. $17 - [(3 + 2) \times 2]$

9. $6 \times (3 + 2) \div 15$

Evaluate each expression.

10. $\dfrac{a + 2b}{5}$ for $a = 1$ and $b = 2$

11. $\dfrac{5m + n}{5}$ for $m = 6$ and $n = 15$

12. $x + 3y$ for $x = 3.4$ and $y = 3$

13. $7a - 4(b + 2)$ for $a = 5$ and $b = 2$

Simplify each expression.

14. $\dfrac{100 - 15}{9 + 8}$

15. $\dfrac{2(3 + 4)}{7}$

16. $\dfrac{3(4 + 12)}{2(7 - 3)}$

17. $14 + 3 \times 4$

18. $8 + 3(4 + 3)$

19. $3 + 4[13 - 2(6 - 3)]$

20. $8(5 + 30 \div 5)$

21. $(3.4)(2.7) + 5$

22. $50 \div 2 + 15 \times 4$

23. $7(9 - 5)$

24. $5(3) - 2(4)$

25. $4 + 8 \div 2 + 6 \times 3$

26. $(7 + 8) \div (4 - 1)$

27. $5[2(8 + 5) - 15]$

28. $(6 + 8) \times (8 - 4)$

29. $12\left(\dfrac{6 + 30}{9 - 3}\right)$

30. $14 + 6 \times 2 - 8 \div 4$

31. $\dfrac{7(14) - 3(6)}{2}$

32. $14 \div [3(8 - 2) - 11]$

33. $3\left(\dfrac{9 + 13}{6}\right)$

34. $\dfrac{4(8 - 3)}{3 + 2}$

35. $3 + 4 \times 8 - 8 \div 4$

36. $13 + 4 \times 9$

37. $5(8 + 2) + 3(11 - 7)$

Evaluate each expression for $a = 2$ and $b = 6$.

38. $2(7a - b)$

39. $(a + b) \div a$

40. $3b \div (2a - 1) + b$

41. $\dfrac{5a + 2}{b}$

42. $\dfrac{3(b - 2)}{4(a + 1)}$

43. $9a + 4b \div 3$

Use the expression $r + 0.12m$ to calculate the cost of renting a car. The basic rate is r. The miles is driven is m. Determine the cost for the following.

44. The basic rate is $15.95. The car is driven 150 miles.

45. The basic rate is $32.50. The car is driven 257 miles.

Evaluate each expression for $s = 3$ and $t = 9$.

46. $8(4s - t)$

47. $(2t - 3s) \div 4$

48. $4t \div (6 + s)$

Use grouping symbols to make each equation true.

49. $6 + 8 \div 4 \times 2 = 7$

50. $4 \div 3 + 1 \times 2 = 2$

51. $5 + 4 \times 3 - 1 = 18$