Practice

Write the words as an algebraic expression.

1. the length plus seven
2. three times the height minus four
3. two times the height plus four times the width
4. five times the number of dogs minus two times the number of cats

Write each expression in words.

5. $2b + 4$
6. $3w - 6$
7. $2l + 3w - 1$
8. $2d - 3c + 6$

Evaluate.

9. $x + 4,\ x = 2$
10. $4y,\ y = 3$
11. $t - 1,\ t = 7$
12. $8 - w,\ w = 2$
13. $4m + 2,\ m = 3$
14. $6t - 2,\ t = 5$
15. $9 - 2x,\ x = 4$
16. $6r + 8,\ r = 7$

Evaluate $4x$ for each value of x.

17. 3
18. 7
19. 2
20. 0

Evaluate $4y + 2$ for each value of y.

21. 1
22. 6
23. 3
24. 5

Evaluate for $x = 2$.

25. $3x$
26. $4x + 7$
27. $10 - 4x$
28. x^2
29. $x^2 - 1$
30. $2(x + 1)$

Evaluate for $y = 3$.

31. $4y$
32. $8 - y$
33. $10 - 3y$
34. $4 + y^2$
35. $y^2 - 2$
36. $2(y - 2)$

Evaluate for $x = 1$ and $y = 4$.

37. $x + y$
38. $2x + y$
39. $4x + y + 3$
40. $x + y - 5$
41. $2x + 3y - 5$
42. $5x - y + 1$

Evaluate for $x = 3.2$ and $y = 1.4$.

43. $x + y$
44. $x - y$
45. $x + 2y$
46. $3x - 2y$
47. $4x + y$
48. $2(x + y)$

Evaluate.

49. $2x,\ x = -2$
50. $5n,\ n = -1$
51. $y + 6,\ y = -3$
52. $4t + 3,\ t = -4$
53. $5 + 3m,\ m = -2$
54. $8 - 2n,\ n = -1$

Evaluate for $x = -2$ and $y = -3$.

55. $x + y$
56. $2x + 3y$
57. $3x - 2y$
58. $5x + 4y + 7$

Problems and Applications

59. The total cost of a banquet, in dollars, is represented by the expression $22n$, where n is the number of people. What is the cost for 37 students?

60. The points total of an NHL team is given by the expression $2w + t$, where w is the number of wins, and t is the number of ties. Copy and complete the table to find the points totals for some Canadian teams in one season.

Team	Wins	Ties	Points
Calgary	43	11	
Edmonton	26	8	
Montreal	48	6	
Ottawa	10	4	
Quebec	47	10	
Toronto	44	11	
Vancouver	46	9	

61. An expression that has 3 terms is called a **trinomial**. The prefix *tri-* means three. Find two other words that start with *tri-*.

62. Evaluate each expression.
a) $(x + 3)^2 + 2y,\ x = 2,\ y = 3$
b) $2(t - 3)^2 - 4s,\ t = 6,\ s = 2$
c) $3(d + 5) - 2e^2,\ d = -3,\ e = -2$

63. Find the whole-number values of x for which the first expression is larger than, or equal to, the second.
a) $2x,\ x^2$
b) $3x,\ x^2$