

## Multiplying a Polynomial by a Monomial

Find each product.

1.  $a(4a + 3)$

3.  $x(2x - 5)$

5.  $-3n(n^2 + 2n)$

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

9.  $-4b(1 - 9b - 2b^2)$

11.  $2m^2(2m^2 + 3m - 5)$

Simplify.

13.  $w(3w + 2) + 5w$

15.  $-p(2p - 8) - 5p$

17.  $2x(3x^2 + 4) - 3x^3$

19.  $4b(-5b - 3) - 2(b^2 - 7b - 4)$

Solve each equation.

21.  $3(a + 2) + 5 = 2a + 4$

23.  $5(y + 1) + 2 = 4(y + 2) - 6$

25.  $6(m - 2) + 14 = 3(m + 2) - 10$

2.  $-c(11c + 4)$

4.  $2y(y - 4)$

6.  $4h(3h - 5)$

8.  $7c(5 - 2c^2 + c^3)$

10.  $6y(-5 - y + 4y^2)$

12.  $-3n^2(-2n^2 + 3n + 4)$

14.  $f(5f - 3) - 2f$

16.  $y^2(-4y + 5) - 6y^2$

18.  $4a(5a^2 - 4) + 9a$

20.  $3m(3m + 6) - 3(m^2 + 4m + 1)$

22.  $2(4x + 2) - 8 = 4(x + 3)$

24.  $4(b + 6) = 2(b + 5) + 2$

26.  $3(c + 5) - 2 = 2(c + 6) + 2$