

## Multiplying Polynomials

Find each product.

1)  $6v(2v + 3)$   
 $12v^2 + 18v$

2)  $7(-5v - 8)$   
 $-35v - 56$

3)  $2x(-2x - 3)$   
 $-4x^2 - 6x$

4)  $-4(v + 1)$   
 $-4v - 4$

5)  $(2n + 2)(6n + 1)$   
 $12n^2 + 14n + 2$

6)  $(4n + 1)(2n + 6)$   
 $8n^2 + 26n + 6$

7)  $(x - 3)(6x - 2)$   
 $6x^2 - 20x + 6$

8)  $(8p - 2)(6p + 2)$   
 $48p^2 + 4p - 4$

9)  $(6p + 8)(5p - 8)$   
 $30p^2 - 8p - 64$

10)  $(3m - 1)(8m + 7)$   
 $24m^2 + 13m - 7$

11)  $(2a - 1)(8a - 5)$   
 $16a^2 - 18a + 5$

12)  $(5n + 6)(5n - 5)$   
 $25n^2 + 5n - 30$

$$13) (4p - 1)^2$$
$$16p^2 - 8p + 1$$

$$14) (7x - 6)(5x + 6)$$
$$35x^2 + 12x - 36$$

$$15) (6n + 3)(6n - 4)$$
$$36n^2 - 6n - 12$$

$$16) (8n + 1)(6n - 3)$$
$$48n^2 - 18n - 3$$

$$17) (6k + 5)(5k + 5)$$
$$30k^2 + 55k + 25$$

$$18) (3x - 4)(4x + 3)$$
$$12x^2 - 7x - 12$$

$$19) (4a + 2)(6a^2 - a + 2)$$
$$24a^3 + 8a^2 + 6a + 4$$

$$20) (7k - 3)(k^2 - 2k + 7)$$
$$7k^3 - 17k^2 + 55k - 21$$

$$21) (7r^2 - 6r - 6)(2r - 4)$$
$$14r^3 - 40r^2 + 12r + 24$$

$$22) (n^2 + 6n - 4)(2n - 4)$$
$$2n^3 + 8n^2 - 32n + 16$$

$$23) (6n^2 - 6n - 5)(7n^2 + 6n - 5)$$
$$42n^4 - 6n^3 - 101n^2 + 25$$

$$24) (m^2 - 7m - 6)(7m^2 - 3m - 7)$$

$$7m^4 - 52m^3 - 28m^2 + 67m + 42$$

## Multiplying Binomials

Find each product.

1)  $(3n + 2)(n + 3)$

$3n^2 + 11n + 6$

2)  $(n - 1)(2n - 2)$

$2n^2 - 4n + 2$

3)  $(2x + 3)(2x - 3)$

$4x^2 - 9$

4)  $(r + 1)(r - 3)$

$r^2 - 2r - 3$

5)  $(2n + 3)(2n + 1)$

$4n^2 + 8n + 3$

6)  $(3p - 3)(p - 1)$

$3p^2 - 6p + 3$

7)  $(3p + 3)(3p + 2)$

$9p^2 + 15p + 6$

8)  $(k - 2)(k - 3)$

$k^2 - 5k + 6$

9)  $(v - 1)(3v - 3)$

$3v^2 - 6v + 3$

10)  $(2x - 3)(3x + 3)$

$6x^2 - 3x - 9$

11)  $(4n + 4)(5n - 8)$

$20n^2 - 12n - 32$

12)  $(5x - 2)(5x - 8)$

$25x^2 - 50x + 16$

13)  $(6x + 2)(2x + 8)$

$12x^2 + 52x + 16$

14)  $(3x + 3)(x + 4)$

$3x^2 + 15x + 12$

15)  $(5v + 4)(3v - 6)$

$15v^2 - 18v - 24$

16)  $(x - 4)(x - 7)$

$x^2 - 11x + 28$

17)  $(5x + 6)(8x - 4)$

$40x^2 + 28x - 24$

18)  $(8b - 1)(5b - 5)$

$40b^2 - 45b + 5$