Name each polynomial by degree and number of terms.

1) $-2a^2 - 3a - 9a^3 + 6$

2) $7a^4 - 8a^8 + a^3 - 10a^5 - 6a^6 + 3$

3) $2r^3$

4) $7n^3 + 7n + n^6$

Find each product.

5) $(n + 8)(8n + 8)$

6) $(7n + 5)(8n - 1)$

7) $(-7x^2 + 5x - 6)(-8x^2 - 7x - 5)$

8) $(10x^3 + 3y)^2$

Factor each completely.

9) $x^2 + x - 2 = 0$

10) $x^2 - 4x - 5 = 0$

11) $x^3 + 2x^2 + 2x + 4 = 0$

12) $x^3 - 4x^2 + 4x - 16 = 0$

13) $x^4 - x^2 - 20 = 0$

14) $x^4 + 3x^2 - 18 = 0$

15) $x^4 + 27x = 0$

16) $x^4 - 64x = 0$

17) $-27x^4 + 64x = 0$

18) $-64x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $-2a^2 - 3a - 9a^3 + 6$

cubic polynomial with four terms

2) $7a^4 - 8a^8 + a^3 - 10a^5 - 6a^6 + 3$

eighth degree polynomial with six terms

3) $2r^3$

cubic monomial

4) $7n^3 + 7n + n^6$

sixth degree trinomial

Find each product.

5) $(n + 8)(8n + 8)$

$8n^2 + 72n + 64$

6) $(7n + 5)(8n - 1)$

$56n^2 + 33n - 5$

7) $(-7x^2 + 5x - 6)(-8x^2 - 7x - 5)$

$56x^4 + 9x^3 + 48x^2 + 17x + 30$

8) $(10x^3 + 3y)^2$

$100x^6 + 60x^3y + 9y^2$

Factor each completely.

9) $x^2 + x - 2 = 0$

$(x - 1)(x + 2) = 0$

10) $x^2 - 4x - 5 = 0$

$(x - 5)(x + 1) = 0$

11) $x^3 + 2x^2 + 2x + 4 = 0$

$(x + 2)(x^2 + 2) = 0$

12) $x^3 - 4x^2 + 4x - 16 = 0$

$(x - 4)(x^2 + 4) = 0$

13) $x^4 - x^2 - 20 = 0$

$(x^2 + 4)(x^2 - 5) = 0$

14) $x^4 + 3x^2 - 18 = 0$

$(x^2 - 3)(x^2 + 6) = 0$

15) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $-27x^4 + 64x = 0$

$x(3x - 4)(-9x^2 - 12x - 16) = 0$

18) $-64x^4 + 125x = 0$

$x(4x - 5)(-16x^2 - 20x - 25) = 0$

Name each polynomial by degree and number of terms.

1) $7x + 9$

2) $10b^2 + 1 + 4b^8 - 4b^7$

3) $2a^5 + 6a^2$

4) $10x^4$

Find each product.

5) $(a - 1)(3a - 5)$

6) $(6p + 6)(2p - 5)$

7) $(-x^2 + 7x - 8)(2x^2 + 8x - 8)$

8) $(-8x + 3y)^2$

Factor each completely.

9) $x^2 + 4x + 3 = 0$

10) $x^2 - 16 = 0$

11) $x^3 + 4x^2 + x + 4 = 0$

12) $x^3 + x^2 - 4x - 4 = 0$

13) $x^4 - 9x^2 + 14 = 0$

14) $x^4 + 2x^2 - 8 = 0$

15) $x^4 - 27x = 0$

16) $x^4 - 8x = 0$

17) $-125x^4 + 27x = 0$

18) $8x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $7x + 9$

linear binomial

2) $10b^2 + 1 + 4b^8 - 4b^7$

eighth degree polynomial with four terms

3) $2a^5 + 6a^2$

quintic binomial

4) $10x^4$

quartic monomial

Find each product.

5) $(a - 1)(3a - 5)$

$3a^2 - 8a + 5$

6) $(6p + 6)(2p - 5)$

$12p^2 - 18p - 30$

7) $(-x^2 + 7x - 8)(2x^2 + 8x - 8)$

$-2x^4 + 6x^3 + 48x^2 - 120x + 64$

8) $(-8x + 3y)^2$

$64x^2 - 48xy + 9y^2$

Factor each completely.

9) $x^2 + 4x + 3 = 0$

$(x + 3)(x + 1) = 0$

10) $x^2 - 16 = 0$

$(x + 4)(x - 4) = 0$

11) $x^3 + 4x^2 + x + 4 = 0$

$(x + 4)(x^2 + 1) = 0$

12) $x^3 + x^2 - 4x - 4 = 0$

$(x + 1)(x - 2)(x + 2) = 0$

13) $x^4 - 9x^2 + 14 = 0$

$(x^2 - 7)(x^2 - 2) = 0$

14) $x^4 + 2x^2 - 8 = 0$

$(x^2 + 4)(x^2 - 2) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

17) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

18) $8x^4 + 27x = 0$

$x(2x + 3)(4x^2 - 6x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $-2 - n^2$

2) $-8k^7 + 9k^8$

3) $-5n + 6$

4) -8

Find each product.

5) $(3p + 1)(8p + 7)$

6) $(3v + 1)(8v + 6)$

7) $(-6x^2 + 3x + 8)(4x^2 - 8x + 3)$

8) $(7x^2 - 8y)^2$

Factor each completely.

9) $x^2 + 3x + 2 = 0$

10) $x^2 - 1 = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

13) $x^4 - 13x^2 + 42 = 0$

14) $x^4 - 11x^2 + 28 = 0$

15) $x^4 - x = 0$

16) $x^4 + 64x = 0$

17) $64x^4 + 27x = 0$

18) $-27x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $-2 - n^2$

quadratic binomial

2) $-8k^7 + 9k^8$

eighth degree binomial

3) $-5n + 6$

linear binomial

4) -8

constant monomial

Find each product.

5) $(3p + 1)(8p + 7)$

$24p^2 + 29p + 7$

6) $(3v + 1)(8v + 6)$

$24v^2 + 26v + 6$

7) $(-6x^2 + 3x + 8)(4x^2 - 8x + 3)$

$-24x^4 + 60x^3 - 10x^2 - 55x + 24$

8) $(7x^2 - 8y)^2$

$49x^4 - 112x^2y + 64y^2$

Factor each completely.

9) $x^2 + 3x + 2 = 0$

$(x + 1)(x + 2) = 0$

10) $x^2 - 1 = 0$

$(x + 1)(x - 1) = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

$(x + 5)(x^2 + 3) = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

$(x + 2)(x^2 - 5) = 0$

13) $x^4 - 13x^2 + 42 = 0$

$(x^2 - 7)(x^2 - 6) = 0$

14) $x^4 - 11x^2 + 28 = 0$

$(x - 2)(x + 2)(x^2 - 7) = 0$

15) $x^4 - x = 0$

$x(x - 1)(x^2 + x + 1) = 0$

16) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

17) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

18) $-27x^4 + 64x = 0$

$x(3x - 4)(-9x^2 - 12x - 16) = 0$

Name each polynomial by degree and number of terms.

1) $-4 - 7x^6 + 7x^3 - 9x^4 - 8x^2$

2) $-3x^3$

3) $-9p - 4p^3 - 6 - 9p^2$

4) $8x + 8x^4 - 4x^2 - 2$

Find each product.

5) $(8k - 1)(3k - 4)$

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

7) $(-4n^2 - 6n - 6)(-3n^2 - n - 6)$

8) $(-6x - 4y)^2$

Factor each completely.

9) $x^2 + x - 6 = 0$

10) $x^2 - 3x + 2 = 0$

11) $x^3 - 3x^2 - 5x + 15 = 0$

12) $x^3 - 3x^2 + 2x - 6 = 0$

13) $x^4 + 15x^2 + 56 = 0$

14) $x^4 + 3x^2 - 40 = 0$

15) $x^4 - 125x = 0$

16) $x^4 + 64x = 0$

17) $8x^4 - 125x = 0$

18) $64x^4 - 27x = 0$

Name each polynomial by degree and number of terms.

1) $-4 - 7x^6 + 7x^3 - 9x^4 - 8x^2$

sixth degree polynomial with five terms

2) $-3x^3$

cubic monomial

3) $-9p - 4p^3 - 6 - 9p^2$

cubic polynomial with four terms

4) $8x + 8x^4 - 4x^2 - 2$

quartic polynomial with four terms

Find each product.

5) $(8k - 1)(3k - 4)$

$24k^2 - 35k + 4$

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

$16x^2 - 64$

7) $(-4n^2 - 6n - 6)(-3n^2 - n - 6)$

$12n^4 + 22n^3 + 48n^2 + 42n + 36$

8) $(-6x - 4y)^2$

$36x^2 + 48xy + 16y^2$

Factor each completely.

9) $x^2 + x - 6 = 0$

$(x + 3)(x - 2) = 0$

10) $x^2 - 3x + 2 = 0$

$(x - 2)(x - 1) = 0$

11) $x^3 - 3x^2 - 5x + 15 = 0$

$(x - 3)(x^2 - 5) = 0$

12) $x^3 - 3x^2 + 2x - 6 = 0$

$(x - 3)(x^2 + 2) = 0$

13) $x^4 + 15x^2 + 56 = 0$

$(x^2 + 8)(x^2 + 7) = 0$

14) $x^4 + 3x^2 - 40 = 0$

$(x^2 + 8)(x^2 - 5) = 0$

15) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

16) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

17) $8x^4 - 125x = 0$

$x(2x - 5)(4x^2 + 10x + 25) = 0$

18) $64x^4 - 27x = 0$

$x(4x - 3)(16x^2 + 12x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $7x$

2) $-4k^7 - 10 - 10k^2 + k^5 - 7k^6 + 10k^3$

3) $-7 - 10x^2$

4) n^6

Find each product.

5) $(6x - 7)(x + 8)$

6) $(n + 8)(2n + 7)$

7) $(6v^2 + 2v - 5)(6v^2 - 6v + 2)$

8) $(2v - 9u)(2v + 9u)$

Factor each completely.

9) $x^2 - 5x + 4 = 0$

10) $x^2 - x - 12 = 0$

11) $x^3 - 3x^2 + 3x - 9 = 0$

12) $x^3 + 4x^2 - 2x - 8 = 0$

13) $x^4 - 7x^2 + 12 = 0$

14) $x^4 + 12x^2 + 32 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + 27x = 0$

17) $27x^4 - 64x = 0$

18) $27x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $7x$

linear monomial

2) $-4k^7 - 10 - 10k^2 + k^5 - 7k^6 + 10k^3$

seventh degree polynomial with six terms

3) $-7 - 10x^2$

quadratic binomial

4) n^6

sixth degree monomial

Find each product.

5) $(6x - 7)(x + 8)$

$6x^2 + 41x - 56$

6) $(n + 8)(2n + 7)$

$2n^2 + 23n + 56$

7) $(6v^2 + 2v - 5)(6v^2 - 6v + 2)$

$36v^4 - 24v^3 - 30v^2 + 34v - 10$

8) $(2v - 9u)(2v + 9u)$

$4v^2 - 81u^2$

Factor each completely.

9) $x^2 - 5x + 4 = 0$

$(x - 4)(x - 1) = 0$

10) $x^2 - x - 12 = 0$

$(x - 4)(x + 3) = 0$

11) $x^3 - 3x^2 + 3x - 9 = 0$

$(x - 3)(x^2 + 3) = 0$

12) $x^3 + 4x^2 - 2x - 8 = 0$

$(x + 4)(x^2 - 2) = 0$

13) $x^4 - 7x^2 + 12 = 0$

$(x^2 - 3)(x - 2)(x + 2) = 0$

14) $x^4 + 12x^2 + 32 = 0$

$(x^2 + 4)(x^2 + 8) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

17) $27x^4 - 64x = 0$

$x(3x - 4)(9x^2 + 12x + 16) = 0$

18) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $-2k$

2) $3b^3 + 9b^2 + 10 - b$

3) $-9n^4$

4) -1

Find each product.

5) $(m - 7)(5m + 7)$

6) $(7m + 1)(4m + 5)$

7) $(-6a^2 - 4a + 5)(-4a^2 + 4a - 1)$

8) $(7u + 3v^2)^2$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

10) $x^2 + 10x + 25 = 0$

11) $x^3 + 3x^2 + 4x + 12 = 0$

12) $x^3 - 3x^2 - 3x + 9 = 0$

13) $x^4 + x^2 - 12 = 0$

14) $x^4 - 7x^2 + 6 = 0$

15) $x^4 + 125x = 0$

16) $x^4 + 27x = 0$

17) $8x^4 - 27x = 0$

18) $-125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $-2k$

linear monomial

2) $3b^3 + 9b^2 + 10 - b$

cubic polynomial with four terms

3) $-9n^4$

quartic monomial

4) -1

constant monomial

Find each product.

5) $(m - 7)(5m + 7)$

$5m^2 - 28m - 49$

6) $(7m + 1)(4m + 5)$

$28m^2 + 39m + 5$

7) $(-6a^2 - 4a + 5)(-4a^2 + 4a - 1)$

$24a^4 - 8a^3 - 30a^2 + 24a - 5$

8) $(7u + 3v^2)^2$

$49u^2 + 42uv^2 + 9v^4$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

$(x - 3)(x - 2) = 0$

10) $x^2 + 10x + 25 = 0$

$(x + 5)^2 = 0$

11) $x^3 + 3x^2 + 4x + 12 = 0$

$(x + 3)(x^2 + 4) = 0$

12) $x^3 - 3x^2 - 3x + 9 = 0$

$(x - 3)(x^2 - 3) = 0$

13) $x^4 + x^2 - 12 = 0$

$(x^2 + 4)(x^2 - 3) = 0$

14) $x^4 - 7x^2 + 6 = 0$

$(x - 1)(x + 1)(x^2 - 6) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

17) $8x^4 - 27x = 0$

$x(2x - 3)(4x^2 + 6x + 9) = 0$

18) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $-2n^2 + 5n$

2) $7m + 6m^2$

3) $5v^5 - 10v^3 + v^2 - 7v - 6v^4 + 5v^7$

4) $3 + 6m^6 + 6m^8 - 5m^4 - 6m^5$

Find each product.

5) $(5b + 7)(b - 1)$

6) $(7r + 6)(3r - 5)$

7) $(8x^2 + 7x + 8)(5x^2 - 6x + 5)$

8) $(4m + n)(4m - n)$

Factor each completely.

9) $x^2 + x - 6 = 0$

10) $x^2 + 2x - 15 = 0$

11) $x^3 + 5x^2 - 3x - 15 = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

13) $x^4 + 4x^2 - 12 = 0$

14) $x^4 + 11x^2 + 30 = 0$

15) $x^4 - 125x = 0$

16) $x^4 + 125x = 0$

17) $-27x^4 + 8x = 0$

18) $27x^4 - 64x = 0$

Name each polynomial by degree and number of terms.

1) $-2n^2 + 5n$

quadratic binomial

2) $7m + 6m^2$

quadratic binomial

3) $5v^5 - 10v^3 + v^2 - 7v - 6v^4 + 5v^7$

seventh degree polynomial with six terms

4) $3 + 6m^6 + 6m^8 - 5m^4 - 6m^5$

eighth degree polynomial with five terms

Find each product.

5) $(5b + 7)(b - 1)$

$5b^2 + 2b - 7$

6) $(7r + 6)(3r - 5)$

$21r^2 - 17r - 30$

7) $(8x^2 + 7x + 8)(5x^2 - 6x + 5)$

$40x^4 - 13x^3 + 38x^2 - 13x + 40$

8) $(4m + n)(4m - n)$

$16m^2 - n^2$

Factor each completely.

9) $x^2 + x - 6 = 0$

$(x + 3)(x - 2) = 0$

10) $x^2 + 2x - 15 = 0$

$(x + 5)(x - 3) = 0$

11) $x^3 + 5x^2 - 3x - 15 = 0$

$(x + 5)(x^2 - 3) = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

$(x + 2)(x^2 - 5) = 0$

13) $x^4 + 4x^2 - 12 = 0$

$(x^2 - 2)(x^2 + 6) = 0$

14) $x^4 + 11x^2 + 30 = 0$

$(x^2 + 5)(x^2 + 6) = 0$

15) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $-27x^4 + 8x = 0$

$x(3x - 2)(-9x^2 - 6x - 4) = 0$

18) $27x^4 - 64x = 0$

$x(3x - 4)(9x^2 + 12x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $2b^4 - 10b^3$

2) -1

3) $-8 + 9k^3 + 10k^7 + 10k$

4) $-4n^2 - n^4 - 5n + 4 + 5n^3$

Find each product.

5) $(2x + 8)(7x + 7)$

6) $(7x - 5)(7x + 1)$

7) $(-6v^2 - 2v - 7)(3v^2 + 8v - 1)$

8) $(-10x - 9y)^2$

Factor each completely.

9) $x^3 + 7x^2 + 10x = 0$

10) $x^2 + 5x + 4 = 0$

11) $x^3 + 3x^2 + x + 3 = 0$

12) $x^3 - 5x^2 + 5x - 25 = 0$

13) $x^4 + 2x^2 - 15 = 0$

14) $x^4 + x^2 - 42 = 0$

15) $x^4 - 64x = 0$

16) $x^4 + 8x = 0$

17) $-27x^4 + 64x = 0$

18) $125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $2b^4 - 10b^3$

quartic binomial

2) -1

constant monomial

3) $-8 + 9k^3 + 10k^7 + 10k$

seventh degree polynomial with four terms

4) $-4n^2 - n^4 - 5n + 4 + 5n^3$

quartic polynomial with five terms

Find each product.

5) $(2x + 8)(7x + 7)$

$14x^2 + 70x + 56$

6) $(7x - 5)(7x + 1)$

$49x^2 - 28x - 5$

7) $(-6v^2 - 2v - 7)(3v^2 + 8v - 1)$

$-18v^4 - 54v^3 - 31v^2 - 54v + 7$

8) $(-10x - 9y)^2$

$100x^2 + 180xy + 81y^2$

Factor each completely.

9) $x^3 + 7x^2 + 10x = 0$

$x(x + 5)(x + 2) = 0$

10) $x^2 + 5x + 4 = 0$

$(x + 1)(x + 4) = 0$

11) $x^3 + 3x^2 + x + 3 = 0$

$(x + 3)(x^2 + 1) = 0$

12) $x^3 - 5x^2 + 5x - 25 = 0$

$(x - 5)(x^2 + 5) = 0$

13) $x^4 + 2x^2 - 15 = 0$

$(x^2 + 5)(x^2 - 3) = 0$

14) $x^4 + x^2 - 42 = 0$

$(x^2 + 7)(x^2 - 6) = 0$

15) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $-27x^4 + 64x = 0$

$x(3x - 4)(-9x^2 - 12x - 16) = 0$

18) $125x^4 + 8x = 0$

$x(5x + 2)(25x^2 - 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $9n^4 + 4n^8 + 7n^2 - 10n + 2n^7$

2) $-8x^6$

3) $-6n - 5 - 2n^3 + 2n^2 - 8n^6$

4) $9 - 3k^4 - 2k^5$

Find each product.

5) $(4x + 3)(8x - 7)$

6) $(7p - 3)(7p - 5)$

7) $(8x^2 - 2x - 7)(6x^2 + 8x - 8)$

8) $(2a - 10b)(2a + 10b)$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

10) $x^3 + x^2 - 6x = 0$

11) $x^3 - 5x^2 - 2x + 10 = 0$

12) $x^3 + x^2 - x - 1 = 0$

13) $x^4 - 12x^2 + 27 = 0$

14) $x^4 + 13x^2 + 40 = 0$

15) $x^4 - x = 0$

16) $x^4 - 27x = 0$

17) $125x^4 - 64x = 0$

18) $125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $9n^4 + 4n^8 + 7n^2 - 10n + 2n^7$

eighth degree polynomial with five terms

2) $-8x^6$

sixth degree monomial

3) $-6n - 5 - 2n^3 + 2n^2 - 8n^6$

sixth degree polynomial with five terms

4) $9 - 3k^4 - 2k^5$

quintic trinomial

Find each product.

5) $(4x + 3)(8x - 7)$

$32x^2 - 4x - 21$

6) $(7p - 3)(7p - 5)$

$49p^2 - 56p + 15$

7) $(8x^2 - 2x - 7)(6x^2 + 8x - 8)$

$48x^4 + 52x^3 - 122x^2 - 40x + 56$

8) $(2a - 10b)(2a + 10b)$

$4a^2 - 100b^2$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

$(x + 2)(x + 4) = 0$

10) $x^3 + x^2 - 6x = 0$

$x(x + 3)(x - 2) = 0$

11) $x^3 - 5x^2 - 2x + 10 = 0$

$(x - 5)(x^2 - 2) = 0$

12) $x^3 + x^2 - x - 1 = 0$

$(x + 1)^2(x - 1) = 0$

13) $x^4 - 12x^2 + 27 = 0$

$(x^2 - 3)(x - 3)(x + 3) = 0$

14) $x^4 + 13x^2 + 40 = 0$

$(x^2 + 5)(x^2 + 8) = 0$

15) $x^4 - x = 0$

$x(x - 1)(x^2 + x + 1) = 0$

16) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

17) $125x^4 - 64x = 0$

$x(5x - 4)(25x^2 + 20x + 16) = 0$

18) $125x^4 + 8x = 0$

$x(5x + 2)(25x^2 - 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $r^5 - 6r^6 - r^7 + 7r - 2r^3$

2) $-4n$

3) $-7m^8$

4) $-10x + 3 - 10x^5 + 6x^3 - 2x^4 - 9x^2$

Find each product.

5) $(5x + 8)(2x - 7)$

6) $(3n + 3)(7n + 3)$

7) $(6x^2 - x + 6)(8x^2 + 2x - 6)$

8) $(-8a^2 + 8b)^2$

Factor each completely.

9) $x^2 + 7x + 10 = 0$

10) $x^2 + 5x + 4 = 0$

11) $x^3 + 3x^2 - x - 3 = 0$

12) $x^3 + 4x^2 + 2x + 8 = 0$

13) $x^4 - 9x^2 + 14 = 0$

14) $x^4 + 3x^2 - 28 = 0$

15) $x^4 + 8x = 0$

16) $x^4 + x = 0$

17) $27x^4 + 8x = 0$

18) $64x^4 - 125x = 0$

Name each polynomial by degree and number of terms.

1) $r^5 - 6r^6 - r^7 + 7r - 2r^3$

seventh degree polynomial with five terms

2) $-4n$

linear monomial

3) $-7m^8$

eighth degree monomial

4) $-10x + 3 - 10x^5 + 6x^3 - 2x^4 - 9x^2$

quintic polynomial with six terms

Find each product.

5) $(5x + 8)(2x - 7)$

$10x^2 - 19x - 56$

6) $(3n + 3)(7n + 3)$

$21n^2 + 30n + 9$

7) $(6x^2 - x + 6)(8x^2 + 2x - 6)$

$48x^4 + 4x^3 + 10x^2 + 18x - 36$

8) $(-8a^2 + 8b)^2$

$64a^4 - 128a^2b + 64b^2$

Factor each completely.

9) $x^2 + 7x + 10 = 0$

$(x + 2)(x + 5) = 0$

10) $x^2 + 5x + 4 = 0$

$(x + 1)(x + 4) = 0$

11) $x^3 + 3x^2 - x - 3 = 0$

$(x + 3)(x - 1)(x + 1) = 0$

12) $x^3 + 4x^2 + 2x + 8 = 0$

$(x + 4)(x^2 + 2) = 0$

13) $x^4 - 9x^2 + 14 = 0$

$(x^2 - 2)(x^2 - 7) = 0$

14) $x^4 + 3x^2 - 28 = 0$

$(x - 2)(x + 2)(x^2 + 7) = 0$

15) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $27x^4 + 8x = 0$

$x(3x + 2)(9x^2 - 6x + 4) = 0$

18) $64x^4 - 125x = 0$

$x(4x - 5)(16x^2 + 20x + 25) = 0$

Name each polynomial by degree and number of terms.

1) -3

2) $-x^8 - x^6$

3) $-v$

4) $-7p^4 - 5p^7 + 9p^2 - 3 - p^6$

Find each product.

5) $(6b + 6)(b + 8)$

6) $(4m - 1)(8m + 4)$

7) $(-2n^2 - 6n + 6)(-6n^2 - 4n - 3)$

8) $(-8m^2 - 3n^2)^2$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

10) $x^2 - 2x + 1 = 0$

11) $x^3 - 5x^2 - x + 5 = 0$

12) $x^3 + 4x^2 - 2x - 8 = 0$

13) $x^4 + 11x^2 + 30 = 0$

14) $x^4 - 11x^2 + 28 = 0$

15) $x^4 - 64x = 0$

16) $x^4 - 27x = 0$

17) $125x^4 - 8x = 0$

18) $125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) -3

constant monomial

2) $-x^8 - x^6$

eighth degree binomial

3) $-v$

linear monomial

4) $-7p^4 - 5p^7 + 9p^2 - 3 - p^6$

seventh degree polynomial with five terms

Find each product.

5) $(6b + 6)(b + 8)$

$6b^2 + 54b + 48$

6) $(4m - 1)(8m + 4)$

$32m^2 + 8m - 4$

7) $(-2n^2 - 6n + 6)(-6n^2 - 4n - 3)$

$12n^4 + 44n^3 - 6n^2 - 6n - 18$

8) $(-8m^2 - 3n^2)^2$

$64m^4 + 48m^2n^2 + 9n^4$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

$(x - 3)(x - 2) = 0$

10) $x^2 - 2x + 1 = 0$

$(x - 1)^2 = 0$

11) $x^3 - 5x^2 - x + 5 = 0$

$(x - 5)(x - 1)(x + 1) = 0$

12) $x^3 + 4x^2 - 2x - 8 = 0$

$(x + 4)(x^2 - 2) = 0$

13) $x^4 + 11x^2 + 30 = 0$

$(x^2 + 6)(x^2 + 5) = 0$

14) $x^4 - 11x^2 + 28 = 0$

$(x - 2)(x + 2)(x^2 - 7) = 0$

15) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

16) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

17) $125x^4 - 8x = 0$

$x(5x - 2)(25x^2 + 10x + 4) = 0$

18) $125x^4 + 8x = 0$

$x(5x + 2)(25x^2 - 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $-x + 8$

2) -4

3) $-9r^3 + 9r^7 + 7r^2$

4) $-3k + k^3 + 5 - 4k^2$

Find each product.

5) $(2x + 3)(8x - 1)$

6) $(r - 3)(2r + 3)$

7) $(4b^2 + 7b - 1)(7b^2 + b + 7)$

8) $(-9u - 4v)(-9u + 4v)$

Factor each completely.

9) $x^2 + x - 12 = 0$

10) $x^3 + 4x^2 + 4x = 0$

11) $x^3 + 3x^2 + 3x + 9 = 0$

12) $x^3 + x^2 - x - 1 = 0$

13) $x^4 + 14x^2 + 45 = 0$

14) $x^4 - 4x^2 - 5 = 0$

15) $x^4 - 8x = 0$

16) $x^4 + 125x = 0$

17) $-64x^4 + 125x = 0$

18) $125x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $-x + 8$

linear binomial

2) -4

constant monomial

3) $-9r^3 + 9r^7 + 7r^2$

seventh degree trinomial

4) $-3k + k^3 + 5 - 4k^2$

cubic polynomial with four terms

Find each product.

5) $(2x + 3)(8x - 1)$

$16x^2 + 22x - 3$

6) $(r - 3)(2r + 3)$

$2r^2 - 3r - 9$

7) $(4b^2 + 7b - 1)(7b^2 + b + 7)$

$28b^4 + 53b^3 + 28b^2 + 48b - 7$

8) $(-9u - 4v)(-9u + 4v)$

$81u^2 - 16v^2$

Factor each completely.

9) $x^2 + x - 12 = 0$

$(x - 3)(x + 4) = 0$

10) $x^3 + 4x^2 + 4x = 0$

$x(x + 2)^2 = 0$

11) $x^3 + 3x^2 + 3x + 9 = 0$

$(x + 3)(x^2 + 3) = 0$

12) $x^3 + x^2 - x - 1 = 0$

$(x + 1)^2(x - 1) = 0$

13) $x^4 + 14x^2 + 45 = 0$

$(x^2 + 9)(x^2 + 5) = 0$

14) $x^4 - 4x^2 - 5 = 0$

$(x^2 - 5)(x^2 + 1) = 0$

15) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $-64x^4 + 125x = 0$

$x(4x - 5)(-16x^2 - 20x - 25) = 0$

18) $125x^4 + 64x = 0$

$x(5x + 4)(25x^2 - 20x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $8n - 7n^2$

2) 1

3) $-9 + 9x^4 - 3x + 3x^3 + 4x^2$

4) $2n^5$

Find each product.

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

6) $(3n - 1)(4n - 6)$

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

8) $(-6n - 2m)^2$

Factor each completely.

9) $x^2 + 4x + 3 = 0$

10) $x^2 + 5x + 6 = 0$

11) $x^3 + 4x^2 - 5x - 20 = 0$

12) $x^3 + x^2 + 4x + 4 = 0$

13) $x^4 + 8x^2 + 15 = 0$

14) $x^4 + 13x^2 + 36 = 0$

15) $x^4 + 64x = 0$

16) $x^4 - 64x = 0$

17) $64x^4 + 27x = 0$

18) $27x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $8n - 7n^2$

quadratic binomial

2) 1

constant monomial

3) $-9 + 9x^4 - 3x + 3x^3 + 4x^2$

quartic polynomial with five terms

4) $2n^5$

quintic monomial

Find each product.

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

$40x^2 - 7x - 20$

6) $(3n - 1)(4n - 6)$

$12n^2 - 22n + 6$

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

$3x^4 + 16x^3 + 3x^2 - 12x - 10$

8) $(-6n - 2m)^2$

$36n^2 + 24nm + 4m^2$

Factor each completely.

9) $x^2 + 4x + 3 = 0$

$(x + 3)(x + 1) = 0$

10) $x^2 + 5x + 6 = 0$

$(x + 2)(x + 3) = 0$

11) $x^3 + 4x^2 - 5x - 20 = 0$

$(x + 4)(x^2 - 5) = 0$

12) $x^3 + x^2 + 4x + 4 = 0$

$(x + 1)(x^2 + 4) = 0$

13) $x^4 + 8x^2 + 15 = 0$

$(x^2 + 5)(x^2 + 3) = 0$

14) $x^4 + 13x^2 + 36 = 0$

$(x^2 + 9)(x^2 + 4) = 0$

15) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

18) $27x^4 + 64x = 0$

$x(3x + 4)(9x^2 - 12x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $-4 + 6n^3 + 8n^2$

2) $-4n$

3) $5n^3 + 8n - 5 - 7n^5 + 9n^2$

4) -10

Find each product.

5) $(3b + 4)(6b + 4)$

6) $(8m - 6)(7m - 7)$

7) $(5x^2 - 4x + 1)(5x^2 + x - 8)$

8) $(-4x - 3y)(-4x + 3y)$

Factor each completely.

9) $x^2 - 5x + 4 = 0$

10) $x^2 - 4x + 4 = 0$

11) $x^3 + 4x^2 - x - 4 = 0$

12) $x^3 + 3x^2 - 4x - 12 = 0$

13) $x^4 - 3x^2 - 4 = 0$

14) $x^4 - 7x^2 + 12 = 0$

15) $x^4 + 27x = 0$

16) $x^4 + x = 0$

17) $125x^4 + 27x = 0$

18) $8x^4 - 125x = 0$

Name each polynomial by degree and number of terms.

1) $-4 + 6n^3 + 8n^2$

cubic trinomial

2) $-4n$

linear monomial

3) $5n^3 + 8n - 5 - 7n^5 + 9n^2$

quintic polynomial with five terms

4) -10

constant monomial

Find each product.

5) $(3b + 4)(6b + 4)$

$18b^2 + 36b + 16$

6) $(8m - 6)(7m - 7)$

$56m^2 - 98m + 42$

7) $(5x^2 - 4x + 1)(5x^2 + x - 8)$

$25x^4 - 15x^3 - 39x^2 + 33x - 8$

8) $(-4x - 3y)(-4x + 3y)$

$16x^2 - 9y^2$

Factor each completely.

9) $x^2 - 5x + 4 = 0$

$(x - 4)(x - 1) = 0$

10) $x^2 - 4x + 4 = 0$

$(x - 2)^2 = 0$

11) $x^3 + 4x^2 - x - 4 = 0$

$(x + 4)(x - 1)(x + 1) = 0$

12) $x^3 + 3x^2 - 4x - 12 = 0$

$(x + 3)(x - 2)(x + 2) = 0$

13) $x^4 - 3x^2 - 4 = 0$

$(x - 2)(x + 2)(x^2 + 1) = 0$

14) $x^4 - 7x^2 + 12 = 0$

$(x^2 - 3)(x - 2)(x + 2) = 0$

15) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $125x^4 + 27x = 0$

$x(5x + 3)(25x^2 - 15x + 9) = 0$

18) $8x^4 - 125x = 0$

$x(2x - 5)(4x^2 + 10x + 25) = 0$

Name each polynomial by degree and number of terms.

1) $-10b^2 + 8$

2) -3

3) $-3n^7 - 3n^5 + 8 + 9n^3 - 2n$

4) $-6n^5 - 4n^3 + 5n - 5n^8 - 10n^7$

Find each product.

5) $(4b - 8)(2b - 2)$

6) $(3r + 6)(7r + 7)$

7) $(-8r^2 + 3r - 1)(-r^2 + 4r + 5)$

8) $(6x + y^2)^2$

Factor each completely.

9) $x^2 + 5x + 4 = 0$

10) $x^3 + 3x^2 - 10x = 0$

11) $x^3 + x^2 - 2x - 2 = 0$

12) $x^3 + 3x^2 - 5x - 15 = 0$

13) $x^4 - x^2 - 56 = 0$

14) $x^4 - 12x^2 + 27 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + 8x = 0$

17) $-125x^4 + 27x = 0$

18) $-125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $-10b^2 + 8$

quadratic binomial

2) -3

constant monomial

3) $-3n^7 - 3n^5 + 8 + 9n^3 - 2n$

seventh degree polynomial with five terms

4) $-6n^5 - 4n^3 + 5n - 5n^8 - 10n^7$

eighth degree polynomial with five terms

Find each product.

5) $(4b - 8)(2b - 2)$

$8b^2 - 24b + 16$

6) $(3r + 6)(7r + 7)$

$21r^2 + 63r + 42$

7) $(-8r^2 + 3r - 1)(-r^2 + 4r + 5)$

$8r^4 - 35r^3 - 27r^2 + 11r - 5$

8) $(6x + y^2)^2$

$36x^2 + 12xy^2 + y^4$

Factor each completely.

9) $x^2 + 5x + 4 = 0$

$(x + 4)(x + 1) = 0$

10) $x^3 + 3x^2 - 10x = 0$

$x(x + 5)(x - 2) = 0$

11) $x^3 + x^2 - 2x - 2 = 0$

$(x + 1)(x^2 - 2) = 0$

12) $x^3 + 3x^2 - 5x - 15 = 0$

$(x + 3)(x^2 - 5) = 0$

13) $x^4 - x^2 - 56 = 0$

$(x^2 + 7)(x^2 - 8) = 0$

14) $x^4 - 12x^2 + 27 = 0$

$(x - 3)(x + 3)(x^2 - 3) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

18) $-125x^4 + 8x = 0$

$x(5x - 2)(-25x^2 - 10x - 4) = 0$

Name each polynomial by degree and number of terms.

1) $7r^2 + 2r - 9r^3$

2) $6x^2$

3) $-10n^6 - n^7$

4) 2

Find each product.

5) $(5n + 8)(2n + 8)$

6) $(7m - 4)(7m - 6)$

7) $(-2r^2 - r - 8)(-2r^2 - 6r - 6)$

8) $(-2x + 6y^2)^2$

Factor each completely.

9) $x^2 + 5x + 6 = 0$

10) $x^2 + 7x + 10 = 0$

11) $x^3 - 4x^2 - x + 4 = 0$

12) $x^3 + x^2 + 2x + 2 = 0$

13) $x^4 + 14x^2 + 45 = 0$

14) $x^4 + 4x^2 - 32 = 0$

15) $x^4 + 64x = 0$

16) $x^4 + 8x = 0$

17) $-125x^4 + 64x = 0$

18) $8x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $7r^2 + 2r - 9r^3$

cubic trinomial

2) $6x^2$

quadratic monomial

3) $-10n^6 - n^7$

seventh degree binomial

4) 2

constant monomial

Find each product.

5) $(5n + 8)(2n + 8)$

$10n^2 + 56n + 64$

6) $(7m - 4)(7m - 6)$

$49m^2 - 70m + 24$

7) $(-2r^2 - r - 8)(-2r^2 - 6r - 6)$

$4r^4 + 14r^3 + 34r^2 + 54r + 48$

8) $(-2x + 6y^2)^2$

$4x^2 - 24xy^2 + 36y^4$

Factor each completely.

9) $x^2 + 5x + 6 = 0$

$(x + 2)(x + 3) = 0$

10) $x^2 + 7x + 10 = 0$

$(x + 5)(x + 2) = 0$

11) $x^3 - 4x^2 - x + 4 = 0$

$(x - 4)(x - 1)(x + 1) = 0$

12) $x^3 + x^2 + 2x + 2 = 0$

$(x + 1)(x^2 + 2) = 0$

13) $x^4 + 14x^2 + 45 = 0$

$(x^2 + 9)(x^2 + 5) = 0$

14) $x^4 + 4x^2 - 32 = 0$

$(x - 2)(x + 2)(x^2 + 8) = 0$

15) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $-125x^4 + 64x = 0$

$x(5x - 4)(-25x^2 - 20x - 16) = 0$

18) $8x^4 + 27x = 0$

$x(2x + 3)(4x^2 - 6x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $-7v^7$

2) $-a^3 + 6a^2$

3) $6 + 10x^3$

4) $-9x^2 + 5$

Find each product.

5) $(4n + 2)(8n - 8)$

6) $(5n - 8)(5n + 5)$

7) $(a^2 + 7a - 6)(2a^2 - a - 3)$

8) $(5x^2 - y^2)^2$

Factor each completely.

9) $x^3 - 6x^2 + 5x = 0$

10) $x^2 + 3x - 4 = 0$

11) $x^3 - 4x^2 + x - 4 = 0$

12) $x^3 - x^2 - 2x + 2 = 0$

13) $x^4 + 4x^2 - 45 = 0$

14) $x^4 + 2x^2 - 3 = 0$

15) $x^4 + 64x = 0$

16) $x^4 - 64x = 0$

17) $-64x^4 + 125x = 0$

18) $64x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $-7v^7$

seventh degree monomial

2) $-a^3 + 6a^2$

cubic binomial

3) $6 + 10x^3$

cubic binomial

4) $-9x^2 + 5$

quadratic binomial

Find each product.

5) $(4n + 2)(8n - 8)$

$32n^2 - 16n - 16$

6) $(5n - 8)(5n + 5)$

$25n^2 - 15n - 40$

7) $(a^2 + 7a - 6)(2a^2 - a - 3)$

$2a^4 + 13a^3 - 22a^2 - 15a + 18$

8) $(5x^2 - y^2)^2$

$25x^4 - 10x^2y^2 + y^4$

Factor each completely.

9) $x^3 - 6x^2 + 5x = 0$

$x(x - 5)(x - 1) = 0$

10) $x^2 + 3x - 4 = 0$

$(x - 1)(x + 4) = 0$

11) $x^3 - 4x^2 + x - 4 = 0$

$(x - 4)(x^2 + 1) = 0$

12) $x^3 - x^2 - 2x + 2 = 0$

$(x - 1)(x^2 - 2) = 0$

13) $x^4 + 4x^2 - 45 = 0$

$(x^2 - 5)(x^2 + 9) = 0$

14) $x^4 + 2x^2 - 3 = 0$

$(x^2 + 3)(x - 1)(x + 1) = 0$

15) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $-64x^4 + 125x = 0$

$x(4x - 5)(-16x^2 - 20x - 25) = 0$

18) $64x^4 + 125x = 0$

$x(4x + 5)(16x^2 - 20x + 25) = 0$

Name each polynomial by degree and number of terms.

1) $-2b^2 + 3b^8 - 6b^3 - 3b^7$

2) $-2v^5 - 10v^8 + 7v^6 - 10$

3) $9m^4 - 9m^6 + 5m^5 + 6$

4) $-2n^5$

Find each product.

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

6) $(2x - 7)^2$

7) $(8m^2 + 4m + 3)(-7m^2 + 8m + 3)$

8) $(-3x^3 - y^2)^2$

Factor each completely.

9) $x^2 + 6x + 5 = 0$

10) $x^2 - 8x + 16 = 0$

11) $x^3 - 3x^2 - 4x + 12 = 0$

12) $x^3 + 5x^2 + 2x + 10 = 0$

13) $x^4 - 7x^2 - 18 = 0$

14) $x^4 - 3x^2 - 4 = 0$

15) $x^4 - 125x = 0$

16) $x^4 + 125x = 0$

17) $-125x^4 + 64x = 0$

18) $-125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $-2b^2 + 3b^8 - 6b^3 - 3b^7$

eighth degree polynomial with four terms

2) $-2v^5 - 10v^8 + 7v^6 - 10$

eighth degree polynomial with four terms

3) $9m^4 - 9m^6 + 5m^5 + 6$

sixth degree polynomial with four terms

4) $-2n^5$

quintic monomial

Find each product.

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

$32n^2 + 16n - 16$

6) $(2x - 7)^2$

$4x^2 - 28x + 49$

7) $(8m^2 + 4m + 3)(-7m^2 + 8m + 3)$

$-56m^4 + 36m^3 + 35m^2 + 36m + 9$

8) $(-3x^3 - y^2)^2$

$9x^6 + 6x^3y^2 + y^4$

Factor each completely.

9) $x^2 + 6x + 5 = 0$

$(x + 1)(x + 5) = 0$

10) $x^2 - 8x + 16 = 0$

$(x - 4)^2 = 0$

11) $x^3 - 3x^2 - 4x + 12 = 0$

$(x - 3)(x - 2)(x + 2) = 0$

12) $x^3 + 5x^2 + 2x + 10 = 0$

$(x + 5)(x^2 + 2) = 0$

13) $x^4 - 7x^2 - 18 = 0$

$(x - 3)(x + 3)(x^2 + 2) = 0$

14) $x^4 - 3x^2 - 4 = 0$

$(x^2 + 1)(x - 2)(x + 2) = 0$

15) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $-125x^4 + 64x = 0$

$x(5x - 4)(-25x^2 - 20x - 16) = 0$

18) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $8x^3 - 10 - 6x^2$

2) $10a^6$

3) $4x^5 - 8x - 5x^2 + 6$

4) $-5n^3 + 5n^4 - 3n^5 + 5n - 7 - n^6$

Find each product.

5) $(3x + 5)(x - 3)$

6) $(3a + 3)(4a + 6)$

7) $(8x^2 - 5x - 8)(4x^2 + 8x - 4)$

8) $(-4x - 6y)^2$

Factor each completely.

9) $x^2 - 6x + 5 = 0$

10) $x^3 + 8x^2 + 15x = 0$

11) $x^3 - 3x^2 + 5x - 15 = 0$

12) $x^3 + 5x^2 - 5x - 25 = 0$

13) $x^4 + 3x^2 - 4 = 0$

14) $x^4 - 2x^2 - 3 = 0$

15) $x^4 + x = 0$

16) $x^4 + 8x = 0$

17) $27x^4 + 64x = 0$

18) $-8x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $8x^3 - 10 - 6x^2$

cubic trinomial

2) $10a^6$

sixth degree monomial

3) $4x^5 - 8x - 5x^2 + 6$

quintic polynomial with four terms

4) $-5n^3 + 5n^4 - 3n^5 + 5n - 7 - n^6$

sixth degree polynomial with six terms

Find each product.

5) $(3x + 5)(x - 3)$

$3x^2 - 4x - 15$

6) $(3a + 3)(4a + 6)$

$12a^2 + 30a + 18$

7) $(8x^2 - 5x - 8)(4x^2 + 8x - 4)$

$32x^4 + 44x^3 - 104x^2 - 44x + 32$

8) $(-4x - 6y)^2$

$16x^2 + 48xy + 36y^2$

Factor each completely.

9) $x^2 - 6x + 5 = 0$

$(x - 5)(x - 1) = 0$

10) $x^3 + 8x^2 + 15x = 0$

$x(x + 3)(x + 5) = 0$

11) $x^3 - 3x^2 + 5x - 15 = 0$

$(x - 3)(x^2 + 5) = 0$

12) $x^3 + 5x^2 - 5x - 25 = 0$

$(x + 5)(x^2 - 5) = 0$

13) $x^4 + 3x^2 - 4 = 0$

$(x^2 + 4)(x - 1)(x + 1) = 0$

14) $x^4 - 2x^2 - 3 = 0$

$(x^2 + 1)(x^2 - 3) = 0$

15) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $27x^4 + 64x = 0$

$x(3x + 4)(9x^2 - 12x + 16) = 0$

18) $-8x^4 + 27x = 0$

$x(2x - 3)(-4x^2 - 6x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $10n^3 + 7n^8$

2) $-4x - x^6 - 5x^5 - 6 + 9x^2 - x^3$

3) $8 - 6n^2 - 2n$

4) $8p^7$

Find each product.

5) $(7n - 3)(6n + 4)$

6) $(7m - 4)(5m - 2)$

7) $(-7m^2 + 8m + 2)(3m^2 + 7m + 5)$

8) $(-10a - 3b)^2$

Factor each completely.

9) $x^2 + x - 2 = 0$

10) $x^2 + 2x - 8 = 0$

11) $x^3 - 3x^2 - 5x + 15 = 0$

12) $x^3 - 5x^2 - 5x + 25 = 0$

13) $x^4 - 4x^2 + 3 = 0$

14) $x^4 + 9x^2 + 14 = 0$

15) $x^4 - 64x = 0$

16) $x^4 + x = 0$

17) $-27x^4 + 125x = 0$

18) $-8x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $10n^3 + 7n^8$

eighth degree binomial

2) $-4x - x^6 - 5x^5 - 6 + 9x^2 - x^3$

sixth degree polynomial with six terms

3) $8 - 6n^2 - 2n$

quadratic trinomial

4) $8p^7$

seventh degree monomial

Find each product.

5) $(7n - 3)(6n + 4)$

$42n^2 + 10n - 12$

6) $(7m - 4)(5m - 2)$

$35m^2 - 34m + 8$

7) $(-7m^2 + 8m + 2)(3m^2 + 7m + 5)$

$-21m^4 - 25m^3 + 27m^2 + 54m + 10$

8) $(-10a - 3b)^2$

$100a^2 + 60ab + 9b^2$

Factor each completely.

9) $x^2 + x - 2 = 0$

$(x - 1)(x + 2) = 0$

10) $x^2 + 2x - 8 = 0$

$(x + 4)(x - 2) = 0$

11) $x^3 - 3x^2 - 5x + 15 = 0$

$(x - 3)(x^2 - 5) = 0$

12) $x^3 - 5x^2 - 5x + 25 = 0$

$(x - 5)(x^2 - 5) = 0$

13) $x^4 - 4x^2 + 3 = 0$

$(x^2 - 3)(x - 1)(x + 1) = 0$

14) $x^4 + 9x^2 + 14 = 0$

$(x^2 + 7)(x^2 + 2) = 0$

15) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $-27x^4 + 125x = 0$

$x(3x - 5)(-9x^2 - 15x - 25) = 0$

18) $-8x^4 + 27x = 0$

$x(2x - 3)(-4x^2 - 6x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $2 - 4b - 6b^2$

2) $-8x^3$

3) $10x - 7x^2$

4) 2

Find each product.

5) $(v - 8)(5v - 7)$

6) $(7x - 7)(5x + 1)$

7) $(5n^2 - 7n + 1)(8n^2 + 5n - 2)$

8) $(4x - 2y)(4x + 2y)$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

10) $x^2 + 9x + 20 = 0$

11) $x^3 + 3x^2 + 3x + 9 = 0$

12) $x^3 + 5x^2 - 2x - 10 = 0$

13) $x^4 + 10x^2 + 21 = 0$

14) $x^4 - 13x^2 + 42 = 0$

15) $x^4 + 125x = 0$

16) $x^4 - 64x = 0$

17) $125x^4 - 27x = 0$

18) $27x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $2 - 4b - 6b^2$

quadratic trinomial

2) $-8x^3$

cubic monomial

3) $10x - 7x^2$

quadratic binomial

4) 2

constant monomial

Find each product.

5) $(v - 8)(5v - 7)$

$5v^2 - 47v + 56$

6) $(7x - 7)(5x + 1)$

$35x^2 - 28x - 7$

7) $(5n^2 - 7n + 1)(8n^2 + 5n - 2)$

$40n^4 - 31n^3 - 37n^2 + 19n - 2$

8) $(4x - 2y)(4x + 2y)$

$16x^2 - 4y^2$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

$(x + 4)(x + 2) = 0$

10) $x^2 + 9x + 20 = 0$

$(x + 4)(x + 5) = 0$

11) $x^3 + 3x^2 + 3x + 9 = 0$

$(x + 3)(x^2 + 3) = 0$

12) $x^3 + 5x^2 - 2x - 10 = 0$

$(x + 5)(x^2 - 2) = 0$

13) $x^4 + 10x^2 + 21 = 0$

$(x^2 + 3)(x^2 + 7) = 0$

14) $x^4 - 13x^2 + 42 = 0$

$(x^2 - 6)(x^2 - 7) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $125x^4 - 27x = 0$

$x(5x - 3)(25x^2 + 15x + 9) = 0$

18) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $-2b^3 - 9 + 5b^2 - 4b$

2) $7x^3 + 10x^7 + 9x^5 + 9 - 2x^2 + 2x$

3) -5

4) -10

Find each product.

5) $(3n - 8)(4n + 1)$

6) $(2x + 7)(8x - 4)$

7) $(-3n^2 + 7n + 7)(6n^2 + n + 8)$

8) $(9a + 10b)(9a - 10b)$

Factor each completely.

9) $x^2 - 3x + 2 = 0$

10) $x^2 + 3x - 4 = 0$

11) $x^3 + 4x^2 - 2x - 8 = 0$

12) $x^3 + 2x^2 + 3x + 6 = 0$

13) $x^4 - 3x^2 - 28 = 0$

14) $x^4 + 17x^2 + 72 = 0$

15) $x^4 - x = 0$

16) $x^4 + 8x = 0$

17) $27x^4 + 8x = 0$

18) $-27x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $-2b^3 - 9 + 5b^2 - 4b$

cubic polynomial with four terms

2) $7x^3 + 10x^7 + 9x^5 + 9 - 2x^2 + 2x$

seventh degree polynomial with six terms

3) -5

constant monomial

4) -10

constant monomial

Find each product.

5) $(3n - 8)(4n + 1)$

$12n^2 - 29n - 8$

6) $(2x + 7)(8x - 4)$

$16x^2 + 48x - 28$

7) $(-3n^2 + 7n + 7)(6n^2 + n + 8)$

$-18n^4 + 39n^3 + 25n^2 + 63n + 56$

8) $(9a + 10b)(9a - 10b)$

$81a^2 - 100b^2$

Factor each completely.

9) $x^2 - 3x + 2 = 0$

$(x - 1)(x - 2) = 0$

10) $x^2 + 3x - 4 = 0$

$(x - 1)(x + 4) = 0$

11) $x^3 + 4x^2 - 2x - 8 = 0$

$(x + 4)(x^2 - 2) = 0$

12) $x^3 + 2x^2 + 3x + 6 = 0$

$(x + 2)(x^2 + 3) = 0$

13) $x^4 - 3x^2 - 28 = 0$

$(x^2 - 7)(x^2 + 4) = 0$

14) $x^4 + 17x^2 + 72 = 0$

$(x^2 + 8)(x^2 + 9) = 0$

15) $x^4 - x = 0$

$x(x - 1)(x^2 + x + 1) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $27x^4 + 8x = 0$

$x(3x + 2)(9x^2 - 6x + 4) = 0$

18) $-27x^4 + 125x = 0$

$x(3x - 5)(-9x^2 - 15x - 25) = 0$

Name each polynomial by degree and number of terms.

1) n^6

2) 4

3) $-5v^3 + 4v$

4) $-8 - n^4 + 5n^2$

Find each product.

5) $(6p + 8)(4p + 8)$

6) $(7x + 3)(7x + 5)$

7) $(8r^2 + 4r + 2)(-2r^2 + 8r - 2)$

8) $(5x + 4y)(5x - 4y)$

Factor each completely.

9) $x^3 - 5x^2 + 4x = 0$

10) $x^2 + x - 12 = 0$

11) $x^3 - 3x^2 - 5x + 15 = 0$

12) $x^3 - x^2 + 2x - 2 = 0$

13) $x^4 - 4x^2 - 32 = 0$

14) $x^4 - 9x^2 + 18 = 0$

15) $x^4 - 125x = 0$

16) $x^4 + x = 0$

17) $-64x^4 + 27x = 0$

18) $125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) n^6

sixth degree monomial

2) 4

constant monomial

3) $-5v^3 + 4v$

cubic binomial

4) $-8 - n^4 + 5n^2$

quartic trinomial

Find each product.

5) $(6p + 8)(4p + 8)$

$24p^2 + 80p + 64$

6) $(7x + 3)(7x + 5)$

$49x^2 + 56x + 15$

7) $(8r^2 + 4r + 2)(-2r^2 + 8r - 2)$

$-16r^4 + 56r^3 + 12r^2 + 8r - 4$

8) $(5x + 4y)(5x - 4y)$

$25x^2 - 16y^2$

Factor each completely.

9) $x^3 - 5x^2 + 4x = 0$

$x(x - 1)(x - 4) = 0$

10) $x^2 + x - 12 = 0$

$(x + 4)(x - 3) = 0$

11) $x^3 - 3x^2 - 5x + 15 = 0$

$(x - 3)(x^2 - 5) = 0$

12) $x^3 - x^2 + 2x - 2 = 0$

$(x - 1)(x^2 + 2) = 0$

13) $x^4 - 4x^2 - 32 = 0$

$(x^2 - 8)(x^2 + 4) = 0$

14) $x^4 - 9x^2 + 18 = 0$

$(x^2 - 6)(x^2 - 3) = 0$

15) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $-64x^4 + 27x = 0$

$x(4x - 3)(-16x^2 - 12x - 9) = 0$

18) $125x^4 + 27x = 0$

$x(5x + 3)(25x^2 - 15x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $-9x^4 + 2x^2 - 3 - 2x^5 - 8x^3 + 4x^7$

2) $8m - 2m^2 + 5 + 2m^4 - 5m^5$

3) $4x^5$

4) $5 - k - 9k^2$

Find each product.

5) $(7n + 3)(7n - 8)$

6) $(v - 5)(6v - 8)$

7) $(8b^2 + b + 4)(-3b^2 + 2b - 2)$

8) $(3x - 5y)^2$

Factor each completely.

9) $x^2 + 4x - 5 = 0$

10) $x^2 - 2x + 1 = 0$

11) $x^3 + 3x^2 - 4x - 12 = 0$

12) $x^3 + x^2 + x + 1 = 0$

13) $x^4 + 5x^2 - 6 = 0$

14) $x^4 + 10x^2 + 21 = 0$

15) $x^4 + 125x = 0$

16) $x^4 - 8x = 0$

17) $-27x^4 + 64x = 0$

18) $27x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $-9x^4 + 2x^2 - 3 - 2x^5 - 8x^3 + 4x^7$

seventh degree polynomial with six terms

2) $8m - 2m^2 + 5 + 2m^4 - 5m^5$

quintic polynomial with five terms

3) $4x^5$

quintic monomial

4) $5 - k - 9k^2$

quadratic trinomial

Find each product.

5) $(7n + 3)(7n - 8)$

$49n^2 - 35n - 24$

6) $(v - 5)(6v - 8)$

$6v^2 - 38v + 40$

7) $(8b^2 + b + 4)(-3b^2 + 2b - 2)$

$-24b^4 + 13b^3 - 26b^2 + 6b - 8$

8) $(3x - 5y)^2$

$9x^2 - 30xy + 25y^2$

Factor each completely.

9) $x^2 + 4x - 5 = 0$

$(x - 1)(x + 5) = 0$

10) $x^2 - 2x + 1 = 0$

$(x - 1)^2 = 0$

11) $x^3 + 3x^2 - 4x - 12 = 0$

$(x + 3)(x - 2)(x + 2) = 0$

12) $x^3 + x^2 + x + 1 = 0$

$(x + 1)(x^2 + 1) = 0$

13) $x^4 + 5x^2 - 6 = 0$

$(x^2 + 6)(x - 1)(x + 1) = 0$

14) $x^4 + 10x^2 + 21 = 0$

$(x^2 + 7)(x^2 + 3) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

17) $-27x^4 + 64x = 0$

$x(3x - 4)(-9x^2 - 12x - 16) = 0$

18) $27x^4 + 125x = 0$

$x(3x + 5)(9x^2 - 15x + 25) = 0$

Name each polynomial by degree and number of terms.

1) 5

2) $8n^2$

3) $-5 - 6n^3$

4) $3n^6 - 2n^5 - 3n^3 - 8n^2$

Find each product.

5) $(8v - 6)(v - 4)$

6) $(4b - 2)(6b + 4)$

7) $(4x^2 - x - 2)(-3x^2 - 3x + 1)$

8) $(-2x + 7y)(-2x - 7y)$

Factor each completely.

9) $x^2 + 4x - 5 = 0$

10) $x^2 - 9 = 0$

11) $x^3 - 2x^2 - 4x + 8 = 0$

12) $x^3 - 5x^2 - 5x + 25 = 0$

13) $x^4 + 4x^2 - 45 = 0$

14) $x^4 - 4x^2 - 45 = 0$

15) $x^4 - 8x = 0$

16) $x^4 + x = 0$

17) $27x^4 - 8x = 0$

18) $-64x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) 5

constant monomial

2) $8n^2$

quadratic monomial

3) $-5 - 6n^3$

cubic binomial

4) $3n^6 - 2n^5 - 3n^3 - 8n^2$

sixth degree polynomial with four terms

Find each product.

5) $(8v - 6)(v - 4)$

$8v^2 - 38v + 24$

6) $(4b - 2)(6b + 4)$

$24b^2 + 4b - 8$

7) $(4x^2 - x - 2)(-3x^2 - 3x + 1)$

$-12x^4 - 9x^3 + 13x^2 + 5x - 2$

8) $(-2x + 7y)(-2x - 7y)$

$4x^2 - 49y^2$

Factor each completely.

9) $x^2 + 4x - 5 = 0$

$(x - 1)(x + 5) = 0$

10) $x^2 - 9 = 0$

$(x + 3)(x - 3) = 0$

11) $x^3 - 2x^2 - 4x + 8 = 0$

$(x-2)^2(x+2) = 0$

12) $x^3 - 5x^2 - 5x + 25 = 0$

$(x-5)(x^2-5) = 0$

13) $x^4 + 4x^2 - 45 = 0$

$(x^2+9)(x^2-5) = 0$

14) $x^4 - 4x^2 - 45 = 0$

$(x-3)(x+3)(x^2+5) = 0$

15) $x^4 - 8x = 0$

$x(x-2)(x^2+2x+4) = 0$

16) $x^4 + x = 0$

$x(x+1)(x^2-x+1) = 0$

17) $27x^4 - 8x = 0$

$x(3x-2)(9x^2+6x+4) = 0$

18) $-64x^4 + 125x = 0$

$x(4x-5)(-16x^2-20x-25) = 0$

Name each polynomial by degree and number of terms.

1) $2n - 4$

2) $10n^8 + 4n^4 + 5n^6 - 8n^7 - n^3$

3) $-7b^2 - 9b^6 - 3$

4) $5b^7 - 8b^4 - 7b^3 - 7b^5 + 5b$

Find each product.

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

6) $(4x + 3)(2x - 1)$

7) $(-3r^2 + 7r - 5)(-2r^2 - 8r + 6)$

8) $(10x + 10y^2)^2$

Factor each completely.

9) $x^2 + 2x - 3 = 0$

10) $x^2 - 3x + 2 = 0$

11) $x^3 - 3x^2 - 3x + 9 = 0$

12) $x^3 + x^2 - 5x - 5 = 0$

13) $x^4 - 12x^2 + 36 = 0$

14) $x^4 + 13x^2 + 36 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + 125x = 0$

17) $-125x^4 + 27x = 0$

18) $64x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $2n - 4$

linear binomial

2) $10n^8 + 4n^4 + 5n^6 - 8n^7 - n^3$

eighth degree polynomial with five terms

3) $-7b^2 - 9b^6 - 3$

sixth degree trinomial

4) $5b^7 - 8b^4 - 7b^3 - 7b^5 + 5b$

seventh degree polynomial with five terms

Find each product.

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

$24x^2 - 56x + 32$

6) $(4x + 3)(2x - 1)$

$8x^2 + 2x - 3$

7) $(-3r^2 + 7r - 5)(-2r^2 - 8r + 6)$

$6r^4 + 10r^3 - 64r^2 + 82r - 30$

8) $(10x + 10y^2)^2$

$100x^2 + 200xy^2 + 100y^4$

Factor each completely.

9) $x^2 + 2x - 3 = 0$

$(x - 1)(x + 3) = 0$

10) $x^2 - 3x + 2 = 0$

$(x - 2)(x - 1) = 0$

11) $x^3 - 3x^2 - 3x + 9 = 0$

$(x - 3)(x^2 - 3) = 0$

12) $x^3 + x^2 - 5x - 5 = 0$

$(x + 1)(x^2 - 5) = 0$

13) $x^4 - 12x^2 + 36 = 0$

$(x^2 - 6)^2 = 0$

14) $x^4 + 13x^2 + 36 = 0$

$(x^2 + 9)(x^2 + 4) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

18) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $6k^4 + 7k^2 - 10k + 9k^3 - 9$

2) $9x - 8x^2$

3) $-5x^2$

4) $-5 + 10r + 7r^4 - 10r^6 - r^5$

Find each product.

5) $(3p - 4)(2p + 6)$

6) $(3n - 1)(7n - 3)$

7) $(4m^2 + 2m - 4)(-7m^2 + 6m - 7)$

8) $(-7a^2 + 9b)^2$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

10) $x^2 - 2x - 3 = 0$

11) $x^3 + x^2 - x - 1 = 0$

12) $x^3 - 4x^2 - 2x + 8 = 0$

13) $x^4 + 12x^2 + 32 = 0$

14) $x^4 - 3x^2 - 28 = 0$

15) $x^4 - 64x = 0$

16) $x^4 - 125x = 0$

17) $27x^4 - 64x = 0$

18) $-125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $6k^4 + 7k^2 - 10k + 9k^3 - 9$

quartic polynomial with five terms

2) $9x - 8x^2$

quadratic binomial

3) $-5x^2$

quadratic monomial

4) $-5 + 10r + 7r^4 - 10r^6 - r^5$

sixth degree polynomial with five terms

Find each product.

5) $(3p - 4)(2p + 6)$

$6p^2 + 10p - 24$

6) $(3n - 1)(7n - 3)$

$21n^2 - 16n + 3$

7) $(4m^2 + 2m - 4)(-7m^2 + 6m - 7)$

$-28m^4 + 10m^3 + 12m^2 - 38m + 28$

8) $(-7a^2 + 9b)^2$

$49a^4 - 126a^2b + 81b^2$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

$(x - 2)(x - 3) = 0$

10) $x^2 - 2x - 3 = 0$

$(x + 1)(x - 3) = 0$

11) $x^3 + x^2 - x - 1 = 0$

$(x + 1)^2(x - 1) = 0$

12) $x^3 - 4x^2 - 2x + 8 = 0$

$(x - 4)(x^2 - 2) = 0$

13) $x^4 + 12x^2 + 32 = 0$

$(x^2 + 4)(x^2 + 8) = 0$

14) $x^4 - 3x^2 - 28 = 0$

$(x^2 - 7)(x^2 + 4) = 0$

15) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

16) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

17) $27x^4 - 64x = 0$

$x(3x - 4)(9x^2 + 12x + 16) = 0$

18) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $3r^5 - 5r^4 + 8r^6$

2) $-8b^6 + 7b^7 + 9b - 5b^5 - 4b^3$

3) $-4a^8 - 3a^6$

4) $-10x$

Find each product.

5) $(4n - 7)(4n + 7)$

6) $(k + 6)(6k - 4)$

7) $(-x^2 - 2x + 1)(6x^2 + x - 8)$

8) $(-3m + 3n)^2$

Factor each completely.

9) $x^2 - x - 2 = 0$

10) $x^2 - 25 = 0$

11) $x^3 - 4x^2 + 2x - 8 = 0$

12) $x^3 + 5x^2 - 4x - 20 = 0$

13) $x^4 + 12x^2 + 36 = 0$

14) $x^4 - 16x^2 + 63 = 0$

15) $x^4 - 8x = 0$

16) $x^4 + 125x = 0$

17) $125x^4 - 64x = 0$

18) $-125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $3r^5 - 5r^4 + 8r^6$

sixth degree trinomial

2) $-8b^6 + 7b^7 + 9b - 5b^5 - 4b^3$

seventh degree polynomial with five terms

3) $-4a^8 - 3a^6$

eighth degree binomial

4) $-10x$

linear monomial

Find each product.

5) $(4n - 7)(4n + 7)$

$16n^2 - 49$

6) $(k + 6)(6k - 4)$

$6k^2 + 32k - 24$

7) $(-x^2 - 2x + 1)(6x^2 + x - 8)$

$-6x^4 - 13x^3 + 12x^2 + 17x - 8$

8) $(-3m + 3n)^2$

$9m^2 - 18mn + 9n^2$

Factor each completely.

9) $x^2 - x - 2 = 0$

$(x - 2)(x + 1) = 0$

10) $x^2 - 25 = 0$

$(x + 5)(x - 5) = 0$

11) $x^3 - 4x^2 + 2x - 8 = 0$

$(x - 4)(x^2 + 2) = 0$

12) $x^3 + 5x^2 - 4x - 20 = 0$

$(x + 5)(x - 2)(x + 2) = 0$

13) $x^4 + 12x^2 + 36 = 0$

$(x^2 + 6)^2 = 0$

14) $x^4 - 16x^2 + 63 = 0$

$(x - 3)(x + 3)(x^2 - 7) = 0$

15) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $125x^4 - 64x = 0$

$x(5x - 4)(25x^2 + 20x + 16) = 0$

18) $-125x^4 + 8x = 0$

$x(5x - 2)(-25x^2 - 10x - 4) = 0$

Name each polynomial by degree and number of terms.

1) $10n^3$

2) $-8m^4 + 10m$

3) a^7

4) $-8r^2 - 2r + 6 - 10r^3$

Find each product.

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

6) $(k - 4)(8k + 1)$

7) $(6x^2 - 6x + 8)(4x^2 - 4x - 2)$

8) $(5n^2 + 9m)(5n^2 - 9m)$

Factor each completely.

9) $x^3 - 8x^2 + 15x = 0$

10) $x^2 - 6x + 8 = 0$

11) $x^3 - 2x^2 + 3x - 6 = 0$

12) $x^3 - x^2 - x + 1 = 0$

13) $x^4 + 8x^2 + 15 = 0$

14) $x^4 + 6x^2 - 16 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + 125x = 0$

17) $-8x^4 + 27x = 0$

18) $27x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $10n^3$

cubic monomial

2) $-8m^4 + 10m$

quartic binomial

3) a^7

seventh degree monomial

4) $-8r^2 - 2r + 6 - 10r^3$

cubic polynomial with four terms

Find each product.

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

$16x^2 + 4x - 30$

6) $(k - 4)(8k + 1)$

$8k^2 - 31k - 4$

7) $(6x^2 - 6x + 8)(4x^2 - 4x - 2)$

$24x^4 - 48x^3 + 44x^2 - 20x - 16$

8) $(5n^2 + 9m)(5n^2 - 9m)$

$25n^4 - 81m^2$

Factor each completely.

9) $x^3 - 8x^2 + 15x = 0$

$x(x - 5)(x - 3) = 0$

10) $x^2 - 6x + 8 = 0$

$(x - 2)(x - 4) = 0$

11) $x^3 - 2x^2 + 3x - 6 = 0$

$(x - 2)(x^2 + 3) = 0$

12) $x^3 - x^2 - x + 1 = 0$

$(x - 1)^2(x + 1) = 0$

13) $x^4 + 8x^2 + 15 = 0$

$(x^2 + 5)(x^2 + 3) = 0$

14) $x^4 + 6x^2 - 16 = 0$

$(x^2 + 8)(x^2 - 2) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $-8x^4 + 27x = 0$

$x(2x - 3)(-4x^2 - 6x - 9) = 0$

18) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $-10n$

2) $-8x^2 + 1$

3) $4 - 3n$

4) $7x + 7x^2 + 1 + 6x^3$

Find each product.

5) $(5n - 7)(5n + 4)$

6) $(b - 2)(4b + 3)$

7) $(-a^2 - 5a - 8)(-6a^2 + 2a - 2)$

8) $(6a - 4b)^2$

Factor each completely.

9) $x^2 + x - 2 = 0$

10) $x^2 - x - 20 = 0$

11) $x^3 - x^2 + 2x - 2 = 0$

12) $x^3 - x^2 + 3x - 3 = 0$

13) $x^4 + 3x^2 - 4 = 0$

14) $x^4 + 3x^2 - 28 = 0$

15) $x^4 + x = 0$

16) $x^4 - 125x = 0$

17) $64x^4 + 27x = 0$

18) $27x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $-10n$

linear monomial

2) $-8x^2 + 1$

quadratic binomial

3) $4 - 3n$

linear binomial

4) $7x + 7x^2 + 1 + 6x^3$

cubic polynomial with four terms

Find each product.

5) $(5n - 7)(5n + 4)$

$25n^2 - 15n - 28$

6) $(b - 2)(4b + 3)$

$4b^2 - 5b - 6$

7) $(-a^2 - 5a - 8)(-6a^2 + 2a - 2)$

$6a^4 + 28a^3 + 40a^2 - 6a + 16$

8) $(6a - 4b)^2$

$36a^2 - 48ab + 16b^2$

Factor each completely.

9) $x^2 + x - 2 = 0$

$(x + 2)(x - 1) = 0$

10) $x^2 - x - 20 = 0$

$(x - 5)(x + 4) = 0$

11) $x^3 - x^2 + 2x - 2 = 0$

$(x - 1)(x^2 + 2) = 0$

12) $x^3 - x^2 + 3x - 3 = 0$

$(x - 1)(x^2 + 3) = 0$

13) $x^4 + 3x^2 - 4 = 0$

$(x - 1)(x + 1)(x^2 + 4) = 0$

14) $x^4 + 3x^2 - 28 = 0$

$(x - 2)(x + 2)(x^2 + 7) = 0$

15) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

16) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

17) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

18) $27x^4 + 64x = 0$

$x(3x + 4)(9x^2 - 12x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $-1 + 10n^3 - 8n^2 - 8n^4 + 4n + 6n^7$

2) $-2b^2 + 8b^6$

3) $5x^7 + 5x^6 - 3 + 10x^4 - x^5 - 5x^2$

4) $8v^4 - 9v^2 + 5v + 8v^3 - 2$

Find each product.

5) $(4x + 8)(8x + 4)$

6) $(5x - 3)(3x - 5)$

7) $(-3b^2 + 3b + 6)(-8b^2 - b + 6)$

8) $(5x - 4y^3)(5x + 4y^3)$

Factor each completely.

9) $x^2 - x - 6 = 0$

10) $x^2 - 16 = 0$

11) $x^3 + 5x^2 - 2x - 10 = 0$

12) $x^3 - 5x^2 + 5x - 25 = 0$

13) $x^4 - 2x^2 - 48 = 0$

14) $x^4 - 3x^2 - 18 = 0$

15) $x^4 + x = 0$

16) $x^4 - 125x = 0$

17) $-125x^4 + 8x = 0$

18) $125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $-1 + 10n^3 - 8n^2 - 8n^4 + 4n + 6n^7$

seventh degree polynomial with six terms

2) $-2b^2 + 8b^6$

sixth degree binomial

3) $5x^7 + 5x^6 - 3 + 10x^4 - x^5 - 5x^2$

seventh degree polynomial with six terms

4) $8v^4 - 9v^2 + 5v + 8v^3 - 2$

quartic polynomial with five terms

Find each product.

5) $(4x + 8)(8x + 4)$

$32x^2 + 80x + 32$

6) $(5x - 3)(3x - 5)$

$15x^2 - 34x + 15$

7) $(-3b^2 + 3b + 6)(-8b^2 - b + 6)$

$24b^4 - 21b^3 - 69b^2 + 12b + 36$

8) $(5x - 4y^3)(5x + 4y^3)$

$25x^2 - 16y^6$

Factor each completely.

9) $x^2 - x - 6 = 0$

$(x - 3)(x + 2) = 0$

10) $x^2 - 16 = 0$

$(x + 4)(x - 4) = 0$

11) $x^3 + 5x^2 - 2x - 10 = 0$

$(x + 5)(x^2 - 2) = 0$

12) $x^3 - 5x^2 + 5x - 25 = 0$

$(x - 5)(x^2 + 5) = 0$

13) $x^4 - 2x^2 - 48 = 0$

$(x^2 - 8)(x^2 + 6) = 0$

14) $x^4 - 3x^2 - 18 = 0$

$(x^2 - 6)(x^2 + 3) = 0$

15) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

16) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

17) $-125x^4 + 8x = 0$

$x(5x - 2)(-25x^2 - 10x - 4) = 0$

18) $125x^4 + 8x = 0$

$x(5x + 2)(25x^2 - 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $4v^2 - 5v + 3 - 8v^3 - v^4 + v^5$

2) x^4

3) -2

4) 9

Find each product.

5) $(2x + 6)(x - 5)$

6) $(3x + 8)(5x + 7)$

7) $(-6b^2 + 6b - 8)(-3b^2 - 8b + 2)$

8) $(-6u - 2v)(-6u + 2v)$

Factor each completely.

9) $x^2 + 2x - 8 = 0$

10) $x^2 + 3x + 2 = 0$

11) $x^3 - 3x^2 - 3x + 9 = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

13) $x^4 - 7x^2 + 12 = 0$

14) $x^4 + 10x^2 + 24 = 0$

15) $x^4 + x = 0$

16) $x^4 + 64x = 0$

17) $64x^4 + 27x = 0$

18) $8x^4 - 27x = 0$

Name each polynomial by degree and number of terms.

1) $4v^2 - 5v + 3 - 8v^3 - v^4 + v^5$

quintic polynomial with six terms

2) x^4

quartic monomial

3) -2

constant monomial

4) 9

constant monomial

Find each product.

5) $(2x + 6)(x - 5)$

$2x^2 - 4x - 30$

6) $(3x + 8)(5x + 7)$

$15x^2 + 61x + 56$

7) $(-6b^2 + 6b - 8)(-3b^2 - 8b + 2)$

$18b^4 + 30b^3 - 36b^2 + 76b - 16$

8) $(-6u - 2v)(-6u + 2v)$

$36u^2 - 4v^2$

Factor each completely.

9) $x^2 + 2x - 8 = 0$

$(x + 4)(x - 2) = 0$

10) $x^2 + 3x + 2 = 0$

$(x + 2)(x + 1) = 0$

11) $x^3 - 3x^2 - 3x + 9 = 0$

$(x - 3)(x^2 - 3) = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

$(x + 2)(x^2 - 5) = 0$

13) $x^4 - 7x^2 + 12 = 0$

$(x - 2)(x + 2)(x^2 - 3) = 0$

14) $x^4 + 10x^2 + 24 = 0$

$(x^2 + 4)(x^2 + 6) = 0$

15) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

16) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

17) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

18) $8x^4 - 27x = 0$

$x(2x - 3)(4x^2 + 6x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $7n^2$

2) $-7 - 6v^4 - 8v^3 + 9v^2 - 6v$

3) $-10x^8$

4) $2a^6 + 9a^7$

Find each product.

5) $(4p + 6)(3p - 1)$

6) $(7n - 3)(6n - 2)$

7) $(5b^2 - 7b - 7)(-7b^2 + b + 6)$

8) $(-x - 5y^2)^2$

Factor each completely.

9) $x^2 - 9x + 20 = 0$

10) $x^2 - 4 = 0$

11) $x^3 + 2x^2 + 4x + 8 = 0$

12) $x^3 - 2x^2 + 3x - 6 = 0$

13) $x^4 - 2x^2 - 15 = 0$

14) $x^4 - 4x^2 + 3 = 0$

15) $x^4 - 8x = 0$

16) $x^4 + 8x = 0$

17) $-125x^4 + 64x = 0$

18) $125x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $7n^2$

quadratic monomial

2) $-7 - 6v^4 - 8v^3 + 9v^2 - 6v$

quartic polynomial with five terms

3) $-10x^8$

eighth degree monomial

4) $2a^6 + 9a^7$

seventh degree binomial

Find each product.

5) $(4p + 6)(3p - 1)$

$12p^2 + 14p - 6$

6) $(7n - 3)(6n - 2)$

$42n^2 - 32n + 6$

7) $(5b^2 - 7b - 7)(-7b^2 + b + 6)$

$-35b^4 + 54b^3 + 72b^2 - 49b - 42$

8) $(-x - 5y^2)^2$

$x^2 + 10xy^2 + 25y^4$

Factor each completely.

9) $x^2 - 9x + 20 = 0$

$(x - 5)(x - 4) = 0$

10) $x^2 - 4 = 0$

$(x - 2)(x + 2) = 0$

11) $x^3 + 2x^2 + 4x + 8 = 0$

$(x + 2)(x^2 + 4) = 0$

12) $x^3 - 2x^2 + 3x - 6 = 0$

$(x - 2)(x^2 + 3) = 0$

13) $x^4 - 2x^2 - 15 = 0$

$(x^2 - 5)(x^2 + 3) = 0$

14) $x^4 - 4x^2 + 3 = 0$

$(x - 1)(x + 1)(x^2 - 3) = 0$

15) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $-125x^4 + 64x = 0$

$x(5x - 4)(-25x^2 - 20x - 16) = 0$

18) $125x^4 + 64x = 0$

$x(5x + 4)(25x^2 - 20x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $10p^5$

2) $-5a + 8a^4 + 4 - 7a^2$

3) $8p^7$

4) $8 - 3m^5 + 8m^6 + 7m$

Find each product.

5) $(7n - 3)(6n + 4)$

6) $(2b - 1)(3b - 3)$

7) $(6r^2 - 6r + 8)(-4r^2 - 3r + 3)$

8) $(3y^2 + 10x)^2$

Factor each completely.

9) $x^3 - 6x^2 + 9x = 0$

10) $x^2 + x - 2 = 0$

11) $x^3 + x^2 - 5x - 5 = 0$

12) $x^3 - 4x^2 - 5x + 20 = 0$

13) $x^4 - 4x^2 + 3 = 0$

14) $x^4 - 49 = 0$

15) $x^4 + 27x = 0$

16) $x^4 + x = 0$

17) $27x^4 - 8x = 0$

18) $-8x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $10p^5$

quintic monomial

2) $-5a + 8a^4 + 4 - 7a^2$

quartic polynomial with four terms

3) $8p^7$

seventh degree monomial

4) $8 - 3m^5 + 8m^6 + 7m$

sixth degree polynomial with four terms

Find each product.

5) $(7n - 3)(6n + 4)$

$42n^2 + 10n - 12$

6) $(2b - 1)(3b - 3)$

$6b^2 - 9b + 3$

7) $(6r^2 - 6r + 8)(-4r^2 - 3r + 3)$

$-24r^4 + 6r^3 + 4r^2 - 42r + 24$

8) $(3y^2 + 10x)^2$

$9y^4 + 60y^2x + 100x^2$

Factor each completely.

9) $x^3 - 6x^2 + 9x = 0$

$x(x - 3)^2 = 0$

10) $x^2 + x - 2 = 0$

$(x - 1)(x + 2) = 0$

11) $x^3 + x^2 - 5x - 5 = 0$

$(x + 1)(x^2 - 5) = 0$

12) $x^3 - 4x^2 - 5x + 20 = 0$

$(x - 4)(x^2 - 5) = 0$

13) $x^4 - 4x^2 + 3 = 0$

$(x^2 - 3)(x - 1)(x + 1) = 0$

14) $x^4 - 49 = 0$

$(x^2 - 7)(x^2 + 7) = 0$

15) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

18) $-8x^4 + 27x = 0$

$x(2x - 3)(-4x^2 - 6x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $-4b^5 + 6b^3 + 6b^2 + 5b^7$

2) $3x^6 + x^7 - 4x^5$

3) $-7x^2 - 6x^5$

4) $-8m^5 + 1$

Find each product.

5) $(6a - 3)(6a + 8)$

6) $(6a + 4)(2a - 3)$

7) $(8a^2 - 5a - 7)(5a^2 + 2a - 4)$

8) $(-6y + 10x)(-6y - 10x)$

Factor each completely.

9) $x^2 - 4x - 5 = 0$

10) $x^2 - x - 12 = 0$

11) $x^3 + 4x^2 + 3x + 12 = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

13) $x^4 + 5x^2 - 14 = 0$

14) $x^4 - 9 = 0$

15) $x^4 + x = 0$

16) $x^4 - 27x = 0$

17) $125x^4 + 8x = 0$

18) $-125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $-4b^5 + 6b^3 + 6b^2 + 5b^7$

seventh degree polynomial with four terms

2) $3x^6 + x^7 - 4x^5$

seventh degree trinomial

3) $-7x^2 - 6x^5$

quintic binomial

4) $-8m^5 + 1$

quintic binomial

Find each product.

5) $(6a - 3)(6a + 8)$

$36a^2 + 30a - 24$

6) $(6a + 4)(2a - 3)$

$12a^2 - 10a - 12$

7) $(8a^2 - 5a - 7)(5a^2 + 2a - 4)$

$40a^4 - 9a^3 - 77a^2 + 6a + 28$

8) $(-6y + 10x)(-6y - 10x)$

$36y^2 - 100x^2$

Factor each completely.

9) $x^2 - 4x - 5 = 0$

$(x - 5)(x + 1) = 0$

10) $x^2 - x - 12 = 0$

$(x + 3)(x - 4) = 0$

11) $x^3 + 4x^2 + 3x + 12 = 0$

$(x + 4)(x^2 + 3) = 0$

12) $x^3 + 2x^2 - 5x - 10 = 0$

$(x + 2)(x^2 - 5) = 0$

13) $x^4 + 5x^2 - 14 = 0$

$(x^2 - 2)(x^2 + 7) = 0$

14) $x^4 - 9 = 0$

$(x^2 - 3)(x^2 + 3) = 0$

15) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

16) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

17) $125x^4 + 8x = 0$

$x(5x + 2)(25x^2 - 10x + 4) = 0$

18) $-125x^4 + 8x = 0$

$x(5x - 2)(-25x^2 - 10x - 4) = 0$

Name each polynomial by degree and number of terms.

1) $9 + 7x^7$

2) $-3n^5$

3) $-10x^5 + 7x$

4) $7v^8$

Find each product.

5) $(4m - 7)(3m + 8)$

6) $(8v + 8)(6v + 1)$

7) $(-p^2 + 4p + 3)(-p^2 + 3p - 8)$

8) $(4x^5 + 4y^3)(4x^5 - 4y^3)$

Factor each completely.

9) $x^2 + 2x - 3 = 0$

10) $x^2 + 6x + 8 = 0$

11) $x^3 - 3x^2 + 5x - 15 = 0$

12) $x^3 - 2x^2 - 2x + 4 = 0$

13) $x^4 + 6x^2 - 16 = 0$

14) $x^4 + 12x^2 + 32 = 0$

15) $x^4 - 125x = 0$

16) $x^4 + 64x = 0$

17) $27x^4 - 8x = 0$

18) $125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $9 + 7x^7$

seventh degree binomial

2) $-3n^5$

quintic monomial

3) $-10x^5 + 7x$

quintic binomial

4) $7v^8$

eighth degree monomial

Find each product.

5) $(4m - 7)(3m + 8)$

$12m^2 + 11m - 56$

6) $(8v + 8)(6v + 1)$

$48v^2 + 56v + 8$

7) $(-p^2 + 4p + 3)(-p^2 + 3p - 8)$

$p^4 - 7p^3 + 17p^2 - 23p - 24$

8) $(4x^5 + 4y^3)(4x^5 - 4y^3)$

$16x^{10} - 16y^6$

Factor each completely.

9) $x^2 + 2x - 3 = 0$

$(x + 3)(x - 1) = 0$

10) $x^2 + 6x + 8 = 0$

$(x + 4)(x + 2) = 0$

11) $x^3 - 3x^2 + 5x - 15 = 0$

$(x - 3)(x^2 + 5) = 0$

12) $x^3 - 2x^2 - 2x + 4 = 0$

$(x - 2)(x^2 - 2) = 0$

13) $x^4 + 6x^2 - 16 = 0$

$(x^2 + 8)(x^2 - 2) = 0$

14) $x^4 + 12x^2 + 32 = 0$

$(x^2 + 4)(x^2 + 8) = 0$

15) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

16) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

17) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

18) $125x^4 + 27x = 0$

$x(5x + 3)(25x^2 - 15x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $10x^3$

2) $3k + 3k^5 - 3k^4$

3) $-2v^8$

4) $-6 - 6r$

Find each product.

5) $(a - 6)(2a + 1)$

6) $(7p - 6)(3p + 4)$

7) $(-6x^2 - x - 8)(x^2 + x + 4)$

8) $(-5y - 8x^3)(-5y + 8x^3)$

Factor each completely.

9) $x^2 + x - 2 = 0$

10) $x^2 + 4x + 4 = 0$

11) $x^3 + 4x^2 + 2x + 8 = 0$

12) $x^3 + 4x^2 + x + 4 = 0$

13) $x^4 + 5x^2 - 36 = 0$

14) $x^4 - x^2 - 20 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + 64x = 0$

17) $64x^4 - 125x = 0$

18) $-125x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $10x^3$

cubic monomial

2) $3k + 3k^5 - 3k^4$

quintic trinomial

3) $-2v^8$

eighth degree monomial

4) $-6 - 6r$

linear binomial

Find each product.

5) $(a - 6)(2a + 1)$

$2a^2 - 11a - 6$

6) $(7p - 6)(3p + 4)$

$21p^2 + 10p - 24$

7) $(-6x^2 - x - 8)(x^2 + x + 4)$

$-6x^4 - 7x^3 - 33x^2 - 12x - 32$

8) $(-5y - 8x^3)(-5y + 8x^3)$

$25y^2 - 64x^6$

Factor each completely.

9) $x^2 + x - 2 = 0$

$(x - 1)(x + 2) = 0$

10) $x^2 + 4x + 4 = 0$

$(x + 2)^2 = 0$

11) $x^3 + 4x^2 + 2x + 8 = 0$

$(x + 4)(x^2 + 2) = 0$

12) $x^3 + 4x^2 + x + 4 = 0$

$(x + 4)(x^2 + 1) = 0$

13) $x^4 + 5x^2 - 36 = 0$

$(x - 2)(x + 2)(x^2 + 9) = 0$

14) $x^4 - x^2 - 20 = 0$

$(x^2 + 4)(x^2 - 5) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

17) $64x^4 - 125x = 0$

$x(4x - 5)(16x^2 + 20x + 25) = 0$

18) $-125x^4 + 64x = 0$

$x(5x - 4)(-25x^2 - 20x - 16) = 0$

Name each polynomial by degree and number of terms.

1) $8m^2 - 7m^6$

2) $-9k^2 + 10k^3 - 8k^4 + 1 + 6k$

3) $6m^3$

4) $-8n^4 - 4 - 9n^3 + 9n^2$

Find each product.

5) $(6x + 8)(x - 1)$

6) $(k + 4)(3k - 2)$

7) $(-4x^2 + 2x + 5)(-5x^2 + 6x + 6)$

8) $(7x + 10y)(7x - 10y)$

Factor each completely.

9) $x^3 + 8x^2 + 16x = 0$

10) $x^2 + x - 2 = 0$

11) $x^3 - 5x^2 - 3x + 15 = 0$

12) $x^3 - x^2 - x + 1 = 0$

13) $x^4 - 12x^2 + 32 = 0$

14) $x^4 + 5x^2 + 6 = 0$

15) $x^4 + 125x = 0$

16) $x^4 - 27x = 0$

17) $-125x^4 + 64x = 0$

18) $-125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $8m^2 - 7m^6$

sixth degree binomial

2) $-9k^2 + 10k^3 - 8k^4 + 1 + 6k$

quartic polynomial with five terms

3) $6m^3$

cubic monomial

4) $-8n^4 - 4 - 9n^3 + 9n^2$

quartic polynomial with four terms

Find each product.

5) $(6x + 8)(x - 1)$

$6x^2 + 2x - 8$

6) $(k + 4)(3k - 2)$

$3k^2 + 10k - 8$

7) $(-4x^2 + 2x + 5)(-5x^2 + 6x + 6)$

$20x^4 - 34x^3 - 37x^2 + 42x + 30$

8) $(7x + 10y)(7x - 10y)$

$49x^2 - 100y^2$

Factor each completely.

9) $x^3 + 8x^2 + 16x = 0$

$x(x + 4)^2 = 0$

10) $x^2 + x - 2 = 0$

$(x - 1)(x + 2) = 0$

11) $x^3 - 5x^2 - 3x + 15 = 0$

$(x - 5)(x^2 - 3) = 0$

12) $x^3 - x^2 - x + 1 = 0$

$(x - 1)^2(x + 1) = 0$

13) $x^4 - 12x^2 + 32 = 0$

$(x^2 - 8)(x - 2)(x + 2) = 0$

14) $x^4 + 5x^2 + 6 = 0$

$(x^2 + 2)(x^2 + 3) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

17) $-125x^4 + 64x = 0$

$x(5x - 4)(-25x^2 - 20x - 16) = 0$

18) $-125x^4 + 8x = 0$

$x(5x - 2)(-25x^2 - 10x - 4) = 0$

Name each polynomial by degree and number of terms.

1) -5

2) $4 + 9n^3$

3) $4n^2 + 4n$

4) $-9 - 9n - 7n^6 - 4n^3 - 10n^2$

Find each product.

5) $(7a - 1)(7a - 8)$

6) $(4n - 2)(5n - 5)$

7) $(4x^2 - 3x + 3)(-2x^2 - 6x + 8)$

8) $(-2u^2 + 6v)^2$

Factor each completely.

9) $x^3 - 25x = 0$

10) $x^2 - 9 = 0$

11) $x^3 + 5x^2 + 5x + 25 = 0$

12) $x^3 + 3x^2 - x - 3 = 0$

13) $x^4 + 14x^2 + 48 = 0$

14) $x^4 - 9 = 0$

15) $x^4 + 27x = 0$

16) $x^4 + x = 0$

17) $64x^4 - 125x = 0$

18) $64x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) -5

constant monomial

2) $4 + 9n^3$

cubic binomial

3) $4n^2 + 4n$

quadratic binomial

4) $-9 - 9n - 7n^6 - 4n^3 - 10n^2$

sixth degree polynomial with five terms

Find each product.

5) $(7a - 1)(7a - 8)$

$49a^2 - 63a + 8$

6) $(4n - 2)(5n - 5)$

$20n^2 - 30n + 10$

7) $(4x^2 - 3x + 3)(-2x^2 - 6x + 8)$

$-8x^4 - 18x^3 + 44x^2 - 42x + 24$

8) $(-2u^2 + 6v)^2$

$4u^4 - 24u^2v + 36v^2$

Factor each completely.

9) $x^3 - 25x = 0$

$x(x - 5)(x + 5) = 0$

10) $x^2 - 9 = 0$

$(x - 3)(x + 3) = 0$

11) $x^3 + 5x^2 + 5x + 25 = 0$

$(x + 5)(x^2 + 5) = 0$

12) $x^3 + 3x^2 - x - 3 = 0$

$(x + 3)(x - 1)(x + 1) = 0$

13) $x^4 + 14x^2 + 48 = 0$

$(x^2 + 8)(x^2 + 6) = 0$

14) $x^4 - 9 = 0$

$(x^2 - 3)(x^2 + 3) = 0$

15) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $64x^4 - 125x = 0$

$x(4x - 5)(16x^2 + 20x + 25) = 0$

18) $64x^4 + 125x = 0$

$x(4x + 5)(16x^2 - 20x + 25) = 0$

Name each polynomial by degree and number of terms.

1) $9n^8$

2) $-3n^3$

3) $9 - 5p^7$

4) $-7n^6 + 8n^5 + 10n^7 - 10$

Find each product.

5) $(8a + 8)(6a - 1)$

6) $(8n - 4)(2n + 3)$

7) $(-b^2 + b - 7)(-8b^2 - 2b + 2)$

8) $(5a - 10b)^2$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

10) $x^2 - 10x + 25 = 0$

11) $x^3 + 5x^2 - 5x - 25 = 0$

12) $x^3 - x^2 + x - 1 = 0$

13) $x^4 - x^2 - 42 = 0$

14) $x^4 - 2x^2 + 1 = 0$

15) $x^4 + x = 0$

16) $x^4 - 27x = 0$

17) $64x^4 - 125x = 0$

18) $8x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $9n^8$

eighth degree monomial

2) $-3n^3$

cubic monomial

3) $9 - 5p^7$

seventh degree binomial

4) $-7n^6 + 8n^5 + 10n^7 - 10$

seventh degree polynomial with four terms

Find each product.

5) $(8a + 8)(6a - 1)$

$48a^2 + 40a - 8$

6) $(8n - 4)(2n + 3)$

$16n^2 + 16n - 12$

7) $(-b^2 + b - 7)(-8b^2 - 2b + 2)$

$8b^4 - 6b^3 + 52b^2 + 16b - 14$

8) $(5a - 10b)^2$

$25a^2 - 100ab + 100b^2$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

$(x + 2)(x + 4) = 0$

10) $x^2 - 10x + 25 = 0$

$(x - 5)^2 = 0$

11) $x^3 + 5x^2 - 5x - 25 = 0$

$(x + 5)(x^2 - 5) = 0$

12) $x^3 - x^2 + x - 1 = 0$

$(x - 1)(x^2 + 1) = 0$

13) $x^4 - x^2 - 42 = 0$

$(x^2 - 7)(x^2 + 6) = 0$

14) $x^4 - 2x^2 + 1 = 0$

$(x - 1)^2 \cdot (x + 1)^2 = 0$

15) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

16) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

17) $64x^4 - 125x = 0$

$x(4x - 5)(16x^2 + 20x + 25) = 0$

18) $8x^4 + 27x = 0$

$x(2x + 3)(4x^2 - 6x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $-4x^5 - 9x^4 + x^3 + 3x$

2) $9k^4 - 6$

3) $7n^3 - 6n - 3n^8 - 3n^2 - 4n^5 + 2n^7$

4) $8n^4 - 3n^5$

Find each product.

5) $(7m + 7)(2m + 6)$

6) $(7b - 3)(b - 1)$

7) $(-2x^2 + 2x - 7)(5x^2 + 4x + 1)$

8) $(9v^2 - 4u)^2$

Factor each completely.

9) $x^3 - 7x^2 + 12x = 0$

10) $x^2 - x - 6 = 0$

11) $x^3 - 4x^2 - 3x + 12 = 0$

12) $x^3 - 3x^2 - 4x + 12 = 0$

13) $x^4 - 9x^2 + 20 = 0$

14) $x^4 - x^2 - 42 = 0$

15) $x^4 - 8x = 0$

16) $x^4 - 64x = 0$

17) $125x^4 - 27x = 0$

18) $27x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $-4x^5 - 9x^4 + x^3 + 3x$

quintic polynomial with four terms

2) $9k^4 - 6$

quartic binomial

3) $7n^3 - 6n - 3n^8 - 3n^2 - 4n^5 + 2n^7$

eighth degree polynomial with six terms

4) $8n^4 - 3n^5$

quintic binomial

Find each product.

5) $(7m + 7)(2m + 6)$

$14m^2 + 56m + 42$

6) $(7b - 3)(b - 1)$

$7b^2 - 10b + 3$

7) $(-2x^2 + 2x - 7)(5x^2 + 4x + 1)$

$-10x^4 + 2x^3 - 29x^2 - 26x - 7$

8) $(9v^2 - 4u)^2$

$81v^4 - 72v^2u + 16u^2$

Factor each completely.

9) $x^3 - 7x^2 + 12x = 0$

$x(x - 3)(x - 4) = 0$

10) $x^2 - x - 6 = 0$

$(x - 3)(x + 2) = 0$

11) $x^3 - 4x^2 - 3x + 12 = 0$

$(x - 4)(x^2 - 3) = 0$

12) $x^3 - 3x^2 - 4x + 12 = 0$

$(x - 3)(x - 2)(x + 2) = 0$

13) $x^4 - 9x^2 + 20 = 0$

$(x - 2)(x + 2)(x^2 - 5) = 0$

14) $x^4 - x^2 - 42 = 0$

$(x^2 + 6)(x^2 - 7) = 0$

15) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $125x^4 - 27x = 0$

$x(5x - 3)(25x^2 + 15x + 9) = 0$

18) $27x^4 + 64x = 0$

$x(3x + 4)(9x^2 - 12x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $-3n^3 - 8n^5 - 5n^4 - 6n^2 - 5$

2) $8r^2$

3) $5a$

4) $9v^2 - 6v^6 + 2v^3 - 2v^8 + v^7$

Find each product.

5) $(5b + 3)(4b + 3)$

6) $(3x - 1)(6x + 2)$

7) $(3n^2 - 5n + 6)(-7n^2 - 5n - 7)$

8) $(-4x - 6y)(-4x + 6y)$

Factor each completely.

9) $x^2 + 6x + 9 = 0$

10) $x^2 - 4x + 3 = 0$

11) $x^3 + 2x^2 - 4x - 8 = 0$

12) $x^3 + 5x^2 + 5x + 25 = 0$

13) $x^4 + 3x^2 - 54 = 0$

14) $x^4 - 3x^2 - 10 = 0$

15) $x^4 + x = 0$

16) $x^4 + 27x = 0$

17) $64x^4 + 27x = 0$

18) $-27x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $-3n^3 - 8n^5 - 5n^4 - 6n^2 - 5$

quintic polynomial with five terms

2) $8r^2$

quadratic monomial

3) $5a$

linear monomial

4) $9v^2 - 6v^6 + 2v^3 - 2v^8 + v^7$

eighth degree polynomial with five terms

Find each product.

5) $(5b + 3)(4b + 3)$

$20b^2 + 27b + 9$

6) $(3x - 1)(6x + 2)$

$18x^2 - 2$

7) $(3n^2 - 5n + 6)(-7n^2 - 5n - 7)$

$-21n^4 + 20n^3 - 38n^2 + 5n - 42$

8) $(-4x - 6y)(-4x + 6y)$

$16x^2 - 36y^2$

Factor each completely.

9) $x^2 + 6x + 9 = 0$

$(x + 3)^2 = 0$

10) $x^2 - 4x + 3 = 0$

$(x - 1)(x - 3) = 0$

11) $x^3 + 2x^2 - 4x - 8 = 0$

$(x + 2)^2(x - 2) = 0$

12) $x^3 + 5x^2 + 5x + 25 = 0$

$(x + 5)(x^2 + 5) = 0$

13) $x^4 + 3x^2 - 54 = 0$

$(x^2 - 6)(x^2 + 9) = 0$

14) $x^4 - 3x^2 - 10 = 0$

$(x^2 + 2)(x^2 - 5) = 0$

15) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

16) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

17) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

18) $-27x^4 + 125x = 0$

$x(3x - 5)(-9x^2 - 15x - 25) = 0$

Name each polynomial by degree and number of terms.

1) $9a - a^4 + a^3 + 1$

2) $-10r^6 + 6r^5 - 9$

3) $3b$

4) $-10n^8 + 2n^7 + 6n^4 + 7n$

Find each product.

5) $(2x + 5)(x - 4)$

6) $(8m - 5)(6m - 2)$

7) $(-x^2 - 8x - 3)(x^2 + 6x + 6)$

8) $(3y^2 - 10x)^2$

Factor each completely.

9) $x^2 - x - 2 = 0$

10) $x^2 + 3x - 10 = 0$

11) $x^3 - 5x^2 - 3x + 15 = 0$

12) $x^3 + 5x^2 + x + 5 = 0$

13) $x^4 - 2x^2 - 24 = 0$

14) $x^4 - 6x^2 - 16 = 0$

15) $x^4 - x = 0$

16) $x^4 - 8x = 0$

17) $27x^4 - 8x = 0$

18) $125x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $9a - a^4 + a^3 + 1$

quartic polynomial with four terms

2) $-10r^6 + 6r^5 - 9$

sixth degree trinomial

3) $3b$

linear monomial

4) $-10n^8 + 2n^7 + 6n^4 + 7n$

eighth degree polynomial with four terms

Find each product.

5) $(2x + 5)(x - 4)$

$2x^2 - 3x - 20$

6) $(8m - 5)(6m - 2)$

$48m^2 - 46m + 10$

7) $(-x^2 - 8x - 3)(x^2 + 6x + 6)$

$-x^4 - 14x^3 - 57x^2 - 66x - 18$

8) $(3y^2 - 10x)^2$

$9y^4 - 60y^2x + 100x^2$

Factor each completely.

9) $x^2 - x - 2 = 0$

$(x - 2)(x + 1) = 0$

10) $x^2 + 3x - 10 = 0$

$(x + 5)(x - 2) = 0$

11) $x^3 - 5x^2 - 3x + 15 = 0$

$(x - 5)(x^2 - 3) = 0$

12) $x^3 + 5x^2 + x + 5 = 0$

$(x + 5)(x^2 + 1) = 0$

13) $x^4 - 2x^2 - 24 = 0$

$(x^2 + 4)(x^2 - 6) = 0$

14) $x^4 - 6x^2 - 16 = 0$

$(x^2 + 2)(x^2 - 8) = 0$

15) $x^4 - x = 0$

$x(x - 1)(x^2 + x + 1) = 0$

16) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

17) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

18) $125x^4 + 64x = 0$

$x(5x + 4)(25x^2 - 20x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $-6n^8$

2) $7x^2$

3) $-10x^2 + 5$

4) $4r^3 + 7r - 10r^2 + 8r^5 + 1$

Find each product.

5) $(6x - 3)(x + 8)$

6) $(7n + 1)(5n + 2)$

7) $(6x^2 + 3x + 4)(6x^2 + 7x - 3)$

8) $(-6x - 6y)^2$

Factor each completely.

9) $x^2 - 16 = 0$

10) $x^2 + 9x + 20 = 0$

11) $x^3 + 3x^2 + 4x + 12 = 0$

12) $x^3 + 3x^2 + x + 3 = 0$

13) $x^4 - 6x^2 + 8 = 0$

14) $x^4 - 13x^2 + 40 = 0$

15) $x^4 + 27x = 0$

16) $x^4 + 8x = 0$

17) $8x^4 + 27x = 0$

18) $-125x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $-6n^8$

eighth degree monomial

2) $7x^2$

quadratic monomial

3) $-10x^2 + 5$

quadratic binomial

4) $4r^3 + 7r - 10r^2 + 8r^5 + 1$

quintic polynomial with five terms

Find each product.

5) $(6x - 3)(x + 8)$

$6x^2 + 45x - 24$

6) $(7n + 1)(5n + 2)$

$35n^2 + 19n + 2$

7) $(6x^2 + 3x + 4)(6x^2 + 7x - 3)$

$36x^4 + 60x^3 + 27x^2 + 19x - 12$

8) $(-6x - 6y)^2$

$36x^2 + 72xy + 36y^2$

Factor each completely.

9) $x^2 - 16 = 0$

$(x - 4)(x + 4) = 0$

10) $x^2 + 9x + 20 = 0$

$(x + 5)(x + 4) = 0$

11) $x^3 + 3x^2 + 4x + 12 = 0$

$(x + 3)(x^2 + 4) = 0$

12) $x^3 + 3x^2 + x + 3 = 0$

$(x + 3)(x^2 + 1) = 0$

13) $x^4 - 6x^2 + 8 = 0$

$(x^2 - 2)(x - 2)(x + 2) = 0$

14) $x^4 - 13x^2 + 40 = 0$

$(x^2 - 8)(x^2 - 5) = 0$

15) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $8x^4 + 27x = 0$

$x(2x + 3)(4x^2 - 6x + 9) = 0$

18) $-125x^4 + 64x = 0$

$x(5x - 4)(-25x^2 - 20x - 16) = 0$

Name each polynomial by degree and number of terms.

1) $3x^4 - x^6$

2) $-6x^5$

3) $-3x^6 - 6x^7 - 8x^5 + 3x^4 + x^2 - 1$

4) $7n^2$

Find each product.

5) $(2n + 6)(6n + 1)$

6) $(7x - 8)(6x - 7)$

7) $(-6x^2 - 7x - 6)(3x^2 - 2x - 5)$

8) $(8x^2 + 8y)(8x^2 - 8y)$

Factor each completely.

9) $x^2 + 10x + 25 = 0$

10) $x^2 - 2x - 8 = 0$

11) $x^3 - x^2 - 2x + 2 = 0$

12) $x^3 - 5x^2 - 4x + 20 = 0$

13) $x^4 - 14x^2 + 49 = 0$

14) $x^4 - 3x^2 - 10 = 0$

15) $x^4 - 27x = 0$

16) $x^4 - 125x = 0$

17) $27x^4 + 125x = 0$

18) $-27x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $3x^4 - x^6$

sixth degree binomial

2) $-6x^5$

quintic monomial

3) $-3x^6 - 6x^7 - 8x^5 + 3x^4 + x^2 - 1$

seventh degree polynomial with six terms

4) $7n^2$

quadratic monomial

Find each product.

5) $(2n + 6)(6n + 1)$

$12n^2 + 38n + 6$

6) $(7x - 8)(6x - 7)$

$42x^2 - 97x + 56$

7) $(-6x^2 - 7x - 6)(3x^2 - 2x - 5)$

$-18x^4 - 9x^3 + 26x^2 + 47x + 30$

8) $(8x^2 + 8y)(8x^2 - 8y)$

$64x^4 - 64y^2$

Factor each completely.

9) $x^2 + 10x + 25 = 0$

$(x + 5)^2 = 0$

10) $x^2 - 2x - 8 = 0$

$(x + 2)(x - 4) = 0$

11) $x^3 - x^2 - 2x + 2 = 0$

$(x - 1)(x^2 - 2) = 0$

12) $x^3 - 5x^2 - 4x + 20 = 0$

$(x - 5)(x - 2)(x + 2) = 0$

13) $x^4 - 14x^2 + 49 = 0$

$(x^2 - 7)^2 = 0$

14) $x^4 - 3x^2 - 10 = 0$

$(x^2 - 5)(x^2 + 2) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

17) $27x^4 + 125x = 0$

$x(3x + 5)(9x^2 - 15x + 25) = 0$

18) $-27x^4 + 8x = 0$

$x(3x - 2)(-9x^2 - 6x - 4) = 0$

Name each polynomial by degree and number of terms.

1) $-7m^3 - m^4 + 5$

2) $5m^7$

3) $-10 + 10a^5$

4) $-2n^3 - 3 + 3n^5 - 3n - 9n^4 - 3n^2$

Find each product.

5) $(8x - 4)(4x - 2)$

6) $(8n + 3)(6n + 4)$

7) $(-2n^2 - 7n - 1)(2n^2 + 6n + 5)$

8) $(-8y + 7x)(-8y - 7x)$

Factor each completely.

9) $x^2 - 5x + 4 = 0$

10) $x^2 - 4x + 3 = 0$

11) $x^3 + 5x^2 + 4x + 20 = 0$

12) $x^3 + 4x^2 + 2x + 8 = 0$

13) $x^4 - 16x^2 + 63 = 0$

14) $x^4 + 18x^2 + 81 = 0$

15) $x^4 - 64x = 0$

16) $x^4 - x = 0$

17) $125x^4 + 64x = 0$

18) $125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $-7m^3 - m^4 + 5$

quartic trinomial

2) $5m^7$

seventh degree monomial

3) $-10 + 10a^5$

quintic binomial

4) $-2n^3 - 3 + 3n^5 - 3n - 9n^4 - 3n^2$

quintic polynomial with six terms

Find each product.

5) $(8x - 4)(4x - 2)$

$32x^2 - 32x + 8$

6) $(8n + 3)(6n + 4)$

$48n^2 + 50n + 12$

7) $(-2n^2 - 7n - 1)(2n^2 + 6n + 5)$

$-4n^4 - 26n^3 - 54n^2 - 41n - 5$

8) $(-8y + 7x)(-8y - 7x)$

$64y^2 - 49x^2$

Factor each completely.

9) $x^2 - 5x + 4 = 0$

$(x - 1)(x - 4) = 0$

10) $x^2 - 4x + 3 = 0$

$(x - 3)(x - 1) = 0$

11) $x^3 + 5x^2 + 4x + 20 = 0$

$(x + 5)(x^2 + 4) = 0$

12) $x^3 + 4x^2 + 2x + 8 = 0$

$(x + 4)(x^2 + 2) = 0$

13) $x^4 - 16x^2 + 63 = 0$

$(x - 3)(x + 3)(x^2 - 7) = 0$

14) $x^4 + 18x^2 + 81 = 0$

$(x^2 + 9)^2 = 0$

15) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

16) $x^4 - x = 0$

$x(x - 1)(x^2 + x + 1) = 0$

17) $125x^4 + 64x = 0$

$x(5x + 4)(25x^2 - 20x + 16) = 0$

18) $125x^4 + 8x = 0$

$x(5x + 2)(25x^2 - 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $-4x^2 + 9x$

2) -10

3) $3x + x^3 - 5x^2 + 10x^5 - 3x^6 - 5x^7$

4) $-5 + 4x$

Find each product.

5) $(2a - 3)(5a + 5)$

6) $(8b - 3)(4b + 5)$

7) $(-6m^2 + m + 4)(-5m^2 - 5m - 1)$

8) $(7a + b)(7a - b)$

Factor each completely.

9) $x^2 + 9x + 20 = 0$

10) $x^2 + x - 12 = 0$

11) $x^3 - 3x^2 + 2x - 6 = 0$

12) $x^3 - x^2 - x + 1 = 0$

13) $x^4 - 81 = 0$

14) $x^4 - 10x^2 + 16 = 0$

15) $x^4 - 125x = 0$

16) $x^4 - 64x = 0$

17) $125x^4 - 8x = 0$

18) $-8x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $-4x^2 + 9x$

quadratic binomial

2) -10

constant monomial

3) $3x + x^3 - 5x^2 + 10x^5 - 3x^6 - 5x^7$

seventh degree polynomial with six terms

4) $-5 + 4x$

linear binomial

Find each product.

5) $(2a - 3)(5a + 5)$

$10a^2 - 5a - 15$

6) $(8b - 3)(4b + 5)$

$32b^2 + 28b - 15$

7) $(-6m^2 + m + 4)(-5m^2 - 5m - 1)$

$30m^4 + 25m^3 - 19m^2 - 21m - 4$

8) $(7a + b)(7a - b)$

$49a^2 - b^2$

Factor each completely.

9) $x^2 + 9x + 20 = 0$

$(x + 4)(x + 5) = 0$

10) $x^2 + x - 12 = 0$

$(x + 4)(x - 3) = 0$

11) $x^3 - 3x^2 + 2x - 6 = 0$

$(x - 3)(x^2 + 2) = 0$

12) $x^3 - x^2 - x + 1 = 0$

$(x - 1)^2(x + 1) = 0$

13) $x^4 - 81 = 0$

$(x^2 + 9)(x - 3)(x + 3) = 0$

14) $x^4 - 10x^2 + 16 = 0$

$(x^2 - 2)(x^2 - 8) = 0$

15) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $125x^4 - 8x = 0$

$x(5x - 2)(25x^2 + 10x + 4) = 0$

18) $-8x^4 + 125x = 0$

$x(2x - 5)(-4x^2 - 10x - 25) = 0$

Name each polynomial by degree and number of terms.

1) $6v$

2) $9 + 6n - 3n^3 + 6n^4$

3) $-3n$

4) $-10m^2$

Find each product.

5) $(7r + 8)(r + 3)$

6) $(7n - 8)(8n + 8)$

7) $(2b^2 + 6b + 8)(-4b^2 - 4b - 7)$

8) $(-6x^4 - 7y^3)^2$

Factor each completely.

9) $x^2 - 2x - 15 = 0$

10) $x^2 + 6x + 8 = 0$

11) $x^3 - 3x^2 + 2x - 6 = 0$

12) $x^3 - 5x^2 - 2x + 10 = 0$

13) $x^4 - 4x^2 - 21 = 0$

14) $x^4 + 14x^2 + 48 = 0$

15) $x^4 + 27x = 0$

16) $x^4 + 125x = 0$

17) $64x^4 - 125x = 0$

18) $125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $6v$

linear monomial

2) $9 + 6n - 3n^3 + 6n^4$

quartic polynomial with four terms

3) $-3n$

linear monomial

4) $-10m^2$

quadratic monomial

Find each product.

5) $(7r + 8)(r + 3)$

$7r^2 + 29r + 24$

6) $(7n - 8)(8n + 8)$

$56n^2 - 8n - 64$

7) $(2b^2 + 6b + 8)(-4b^2 - 4b - 7)$

$-8b^4 - 32b^3 - 70b^2 - 74b - 56$

8) $(-6x^4 - 7y^3)^2$

$36x^8 + 84x^4y^3 + 49y^6$

Factor each completely.

9) $x^2 - 2x - 15 = 0$

$(x + 3)(x - 5) = 0$

10) $x^2 + 6x + 8 = 0$

$(x + 4)(x + 2) = 0$

11) $x^3 - 3x^2 + 2x - 6 = 0$

$(x - 3)(x^2 + 2) = 0$

12) $x^3 - 5x^2 - 2x + 10 = 0$

$(x - 5)(x^2 - 2) = 0$

13) $x^4 - 4x^2 - 21 = 0$

$(x^2 + 3)(x^2 - 7) = 0$

14) $x^4 + 14x^2 + 48 = 0$

$(x^2 + 8)(x^2 + 6) = 0$

15) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $64x^4 - 125x = 0$

$x(4x - 5)(16x^2 + 20x + 25) = 0$

18) $125x^4 + 27x = 0$

$x(5x + 3)(25x^2 - 15x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $10r^5 - 6r^2 + 1 - 5r - 10r^4$

2) $-2a + 7a^3 - 6a^2 - 2a^4$

3) $-5n^5 - n^3 + 5n^8 - 8n^2 + 10n^7 - 4$

4) $2 + 7x^3 - 4x^4 + 4x^6$

Find each product.

5) $(7p - 5)(6p + 6)$

6) $(5x - 1)(3x + 2)$

7) $(8n^2 + 7n - 4)(-5n^2 + 7n + 5)$

8) $(-u^2 + 4v)^2$

Factor each completely.

9) $x^3 - 5x^2 + 4x = 0$

10) $x^2 + 2x - 15 = 0$

11) $x^3 - 4x^2 + 3x - 12 = 0$

12) $x^3 + 3x^2 - 5x - 15 = 0$

13) $x^4 + 11x^2 + 18 = 0$

14) $x^4 + x^2 - 20 = 0$

15) $x^4 + 125x = 0$

16) $x^4 + x = 0$

17) $27x^4 + 125x = 0$

18) $125x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $10r^5 - 6r^2 + 1 - 5r - 10r^4$

quintic polynomial with five terms

2) $-2a + 7a^3 - 6a^2 - 2a^4$

quartic polynomial with four terms

3) $-5n^5 - n^3 + 5n^8 - 8n^2 + 10n^7 - 4$

eighth degree polynomial with six terms

4) $2 + 7x^3 - 4x^4 + 4x^6$

sixth degree polynomial with four terms

Find each product.

5) $(7p - 5)(6p + 6)$

$42p^2 + 12p - 30$

6) $(5x - 1)(3x + 2)$

$15x^2 + 7x - 2$

7) $(8n^2 + 7n - 4)(-5n^2 + 7n + 5)$

$-40n^4 + 21n^3 + 109n^2 + 7n - 20$

8) $(-u^2 + 4v)^2$

$u^4 - 8u^2v + 16v^2$

Factor each completely.

9) $x^3 - 5x^2 + 4x = 0$

$x(x - 4)(x - 1) = 0$

10) $x^2 + 2x - 15 = 0$

$(x - 3)(x + 5) = 0$

11) $x^3 - 4x^2 + 3x - 12 = 0$

$(x - 4)(x^2 + 3) = 0$

12) $x^3 + 3x^2 - 5x - 15 = 0$

$(x + 3)(x^2 - 5) = 0$

13) $x^4 + 11x^2 + 18 = 0$

$(x^2 + 2)(x^2 + 9) = 0$

14) $x^4 + x^2 - 20 = 0$

$(x^2 + 5)(x - 2)(x + 2) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $27x^4 + 125x = 0$

$x(3x + 5)(9x^2 - 15x + 25) = 0$

18) $125x^4 - 8x = 0$

$x(5x - 2)(25x^2 + 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $6n + 10n^2 - 7$

2) $-9m^8 - 7m^6 + 5m - m^7 + 4m^5$

3) -9

4) $-2a + 5a^4 - 4a^2 - 8$

Find each product.

5) $(3n - 8)(6n + 2)$

6) $(4n + 6)(2n + 8)$

7) $(m^2 + m - 5)(-m^2 + 3m - 2)$

8) $(4u^2 - 4v)^2$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

10) $x^2 - 5x + 4 = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

12) $x^3 - 2x^2 + 3x - 6 = 0$

13) $x^4 - x^2 - 30 = 0$

14) $x^4 + 6x^2 - 27 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + x = 0$

17) $27x^4 - 64x = 0$

18) $125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $6n + 10n^2 - 7$

quadratic trinomial

2) $-9m^8 - 7m^6 + 5m - m^7 + 4m^5$

eighth degree polynomial with five terms

3) -9

constant monomial

4) $-2a + 5a^4 - 4a^2 - 8$

quartic polynomial with four terms

Find each product.

5) $(3n - 8)(6n + 2)$

$18n^2 - 42n - 16$

6) $(4n + 6)(2n + 8)$

$8n^2 + 44n + 48$

7) $(m^2 + m - 5)(-m^2 + 3m - 2)$

$-m^4 + 2m^3 + 6m^2 - 17m + 10$

8) $(4u^2 - 4v)^2$

$16u^4 - 32u^2v + 16v^2$

Factor each completely.

9) $x^2 - 5x + 6 = 0$

$(x - 3)(x - 2) = 0$

10) $x^2 - 5x + 4 = 0$

$(x - 4)(x - 1) = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

$(x + 5)(x^2 + 3) = 0$

12) $x^3 - 2x^2 + 3x - 6 = 0$

$(x - 2)(x^2 + 3) = 0$

13) $x^4 - x^2 - 30 = 0$

$(x^2 - 6)(x^2 + 5) = 0$

14) $x^4 + 6x^2 - 27 = 0$

$(x^2 - 3)(x^2 + 9) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $27x^4 - 64x = 0$

$x(3x - 4)(9x^2 + 12x + 16) = 0$

18) $125x^4 + 27x = 0$

$x(5x + 3)(25x^2 - 15x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $8x^6 + 7x^7 + x^2 + 9x^8$

2) $-9 + 3v^3 - 4v - 5v^4 + 8v^5 - 2v^6$

3) $3b^2 + 9b^5 + 6b - 5b^3$

4) $6x^6$

Find each product.

5) $(6x + 1)(4x - 8)$

6) $(2x + 1)(3x + 4)$

7) $(7x^2 + 6x - 4)(3x^2 + 6x + 5)$

8) $(3a^2 - 6b^2)(3a^2 + 6b^2)$

Factor each completely.

9) $x^2 - x - 2 = 0$

10) $x^2 - 7x + 12 = 0$

11) $x^3 + x^2 + 4x + 4 = 0$

12) $x^3 + 5x^2 + 2x + 10 = 0$

13) $x^4 + 13x^2 + 40 = 0$

14) $x^4 - 13x^2 + 40 = 0$

15) $x^4 - x = 0$

16) $x^4 + 8x = 0$

17) $27x^4 + 125x = 0$

18) $-27x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $8x^6 + 7x^7 + x^2 + 9x^8$

eighth degree polynomial with four terms

2) $-9 + 3v^3 - 4v - 5v^4 + 8v^5 - 2v^6$

sixth degree polynomial with six terms

3) $3b^2 + 9b^5 + 6b - 5b^3$

quintic polynomial with four terms

4) $6x^6$

sixth degree monomial

Find each product.

5) $(6x + 1)(4x - 8)$

$24x^2 - 44x - 8$

6) $(2x + 1)(3x + 4)$

$6x^2 + 11x + 4$

7) $(7x^2 + 6x - 4)(3x^2 + 6x + 5)$

$21x^4 + 60x^3 + 59x^2 + 6x - 20$

8) $(3a^2 - 6b^2)(3a^2 + 6b^2)$

$9a^4 - 36b^4$

Factor each completely.

9) $x^2 - x - 2 = 0$

$(x - 2)(x + 1) = 0$

10) $x^2 - 7x + 12 = 0$

$(x - 3)(x - 4) = 0$

11) $x^3 + x^2 + 4x + 4 = 0$

$(x + 1)(x^2 + 4) = 0$

12) $x^3 + 5x^2 + 2x + 10 = 0$

$(x + 5)(x^2 + 2) = 0$

13) $x^4 + 13x^2 + 40 = 0$

$(x^2 + 8)(x^2 + 5) = 0$

14) $x^4 - 13x^2 + 40 = 0$

$(x^2 - 8)(x^2 - 5) = 0$

15) $x^4 - x = 0$

$x(x - 1)(x^2 + x + 1) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $27x^4 + 125x = 0$

$x(3x + 5)(9x^2 - 15x + 25) = 0$

18) $-27x^4 + 64x = 0$

$x(3x - 4)(-9x^2 - 12x - 16) = 0$

Name each polynomial by degree and number of terms.

1) $5v^3 - 2v^6 - 2$

2) $r^4 - 5 - 3r^2 - r - r^6 - 10r^5$

3) $-10n^5 - 2n^6 + 9 + 7n^3$

4) $-3r$

Find each product.

5) $(7n + 6)(5n + 3)$

6) $(7n - 6)(n - 7)$

7) $(3x^2 - x + 6)(3x^2 + 6x - 4)$

8) $(7m + 7n)^2$

Factor each completely.

9) $x^2 - 3x + 2 = 0$

10) $x^2 - 2x - 8 = 0$

11) $x^3 - 2x^2 + 4x - 8 = 0$

12) $x^3 - 5x^2 + x - 5 = 0$

13) $x^4 - x^2 - 6 = 0$

14) $x^4 - x^2 - 12 = 0$

15) $x^4 - 8x = 0$

16) $x^4 - 64x = 0$

17) $64x^4 + 27x = 0$

18) $-8x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $5v^3 - 2v^6 - 2$

sixth degree trinomial

2) $r^4 - 5 - 3r^2 - r - r^6 - 10r^5$

sixth degree polynomial with six terms

3) $-10n^5 - 2n^6 + 9 + 7n^3$

sixth degree polynomial with four terms

4) $-3r$

linear monomial

Find each product.

5) $(7n + 6)(5n + 3)$

$35n^2 + 51n + 18$

6) $(7n - 6)(n - 7)$

$7n^2 - 55n + 42$

7) $(3x^2 - x + 6)(3x^2 + 6x - 4)$

$9x^4 + 15x^3 + 40x - 24$

8) $(7m + 7n)^2$

$49m^2 + 98mn + 49n^2$

Factor each completely.

9) $x^2 - 3x + 2 = 0$

$(x - 2)(x - 1) = 0$

10) $x^2 - 2x - 8 = 0$

$(x + 2)(x - 4) = 0$

11) $x^3 - 2x^2 + 4x - 8 = 0$

$(x - 2)(x^2 + 4) = 0$

12) $x^3 - 5x^2 + x - 5 = 0$

$(x - 5)(x^2 + 1) = 0$

13) $x^4 - x^2 - 6 = 0$

$(x^2 + 2)(x^2 - 3) = 0$

14) $x^4 - x^2 - 12 = 0$

$(x^2 + 3)(x - 2)(x + 2) = 0$

15) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

18) $-8x^4 + 125x = 0$

$x(2x - 5)(-4x^2 - 10x - 25) = 0$

Name each polynomial by degree and number of terms.

1) $-9x^5$

2) $-4r + 5r^3$

3) $8k^3 + 9k^2 - k - 3 + 7k^7 - 7k^6$

4) $8x - x^2 - 7 - 5x^3$

Find each product.

5) $(x - 1)(8x - 4)$

6) $(4n + 6)(6n + 7)$

7) $(-n^2 - n - 2)(8n^2 - 4n + 2)$

8) $(6x + 6y)^2$

Factor each completely.

9) $x^2 + 5x + 4 = 0$

10) $x^3 - 7x^2 + 10x = 0$

11) $x^3 + 5x^2 - 4x - 20 = 0$

12) $x^3 + 3x^2 - x - 3 = 0$

13) $x^4 - 11x^2 + 28 = 0$

14) $x^4 - 11x^2 + 30 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + 125x = 0$

17) $-125x^4 + 27x = 0$

18) $-125x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $-9x^5$

quintic monomial

2) $-4r + 5r^3$

cubic binomial

3) $8k^3 + 9k^2 - k - 3 + 7k^7 - 7k^6$

seventh degree polynomial with six terms

4) $8x - x^2 - 7 - 5x^3$

cubic polynomial with four terms

Find each product.

5) $(x - 1)(8x - 4)$

$8x^2 - 12x + 4$

6) $(4n + 6)(6n + 7)$

$24n^2 + 64n + 42$

7) $(-n^2 - n - 2)(8n^2 - 4n + 2)$

$-8n^4 - 4n^3 - 14n^2 + 6n - 4$

8) $(6x + 6y)^2$

$36x^2 + 72xy + 36y^2$

Factor each completely.

9) $x^2 + 5x + 4 = 0$

$(x + 1)(x + 4) = 0$

10) $x^3 - 7x^2 + 10x = 0$

$x(x - 2)(x - 5) = 0$

11) $x^3 + 5x^2 - 4x - 20 = 0$

$(x + 5)(x - 2)(x + 2) = 0$

12) $x^3 + 3x^2 - x - 3 = 0$

$(x + 3)(x - 1)(x + 1) = 0$

13) $x^4 - 11x^2 + 28 = 0$

$(x - 2)(x + 2)(x^2 - 7) = 0$

14) $x^4 - 11x^2 + 30 = 0$

$(x^2 - 5)(x^2 - 6) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

18) $-125x^4 + 8x = 0$

$x(5x - 2)(-25x^2 - 10x - 4) = 0$

Name each polynomial by degree and number of terms.

1) $2k^4$

2) $-5x^5 + 5x - 10 + 5x^4$

3) $4 - 2n^5$

4) $2k$

Find each product.

5) $(8x + 4)(2x + 6)$

6) $(2n + 3)(2n - 8)$

7) $(-p^2 + 2p - 7)(-3p^2 + 5p - 2)$

8) $(-9y - 3x)^2$

Factor each completely.

9) $x^2 - 10x + 25 = 0$

10) $x^2 + 4x + 3 = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

12) $x^3 + x^2 - x - 1 = 0$

13) $x^4 + 10x^2 + 24 = 0$

14) $x^4 + 17x^2 + 72 = 0$

15) $x^4 + 64x = 0$

16) $x^4 - 125x = 0$

17) $-27x^4 + 125x = 0$

18) $125x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $2k^4$

quartic monomial

2) $-5x^5 + 5x - 10 + 5x^4$

quintic polynomial with four terms

3) $4 - 2n^5$

quintic binomial

4) $2k$

linear monomial

Find each product.

5) $(8x + 4)(2x + 6)$

$16x^2 + 56x + 24$

6) $(2n + 3)(2n - 8)$

$4n^2 - 10n - 24$

7) $(-p^2 + 2p - 7)(-3p^2 + 5p - 2)$

$3p^4 - 11p^3 + 33p^2 - 39p + 14$

8) $(-9y - 3x)^2$

$81y^2 + 54yx + 9x^2$

Factor each completely.

9) $x^2 - 10x + 25 = 0$

$(x - 5)^2 = 0$

10) $x^2 + 4x + 3 = 0$

$(x + 3)(x + 1) = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

$(x + 5)(x^2 + 3) = 0$

12) $x^3 + x^2 - x - 1 = 0$

$(x + 1)^2(x - 1) = 0$

13) $x^4 + 10x^2 + 24 = 0$

$(x^2 + 6)(x^2 + 4) = 0$

14) $x^4 + 17x^2 + 72 = 0$

$(x^2 + 9)(x^2 + 8) = 0$

15) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

16) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

17) $-27x^4 + 125x = 0$

$x(3x - 5)(-9x^2 - 15x - 25) = 0$

18) $125x^4 - 8x = 0$

$x(5x - 2)(25x^2 + 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) -6

2) $8x + 5x^7$

3) $9n^4 + 5n^2 + 7n^3 + 3n^6$

4) $2n + n^8 - 3n^5$

Find each product.

5) $(8a - 2)(4a - 1)$

6) $(5v + 7)(4v - 7)$

7) $(-5n^2 + 3n + 2)(-8n^2 + 3n - 4)$

8) $(7a + 9b)^2$

Factor each completely.

9) $x^2 + 6x + 9 = 0$

10) $x^2 + x - 6 = 0$

11) $x^3 + 4x^2 - 4x - 16 = 0$

12) $x^3 - 2x^2 + x - 2 = 0$

13) $x^4 + 16x^2 + 64 = 0$

14) $x^4 + 11x^2 + 18 = 0$

15) $x^4 + 27x = 0$

16) $x^4 + 8x = 0$

17) $27x^4 + 125x = 0$

18) $-125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) -6

constant monomial

2) $8x + 5x^7$

seventh degree binomial

3) $9n^4 + 5n^2 + 7n^3 + 3n^6$

sixth degree polynomial with four terms

4) $2n + n^8 - 3n^5$

eighth degree trinomial

Find each product.

5) $(8a - 2)(4a - 1)$

$32a^2 - 16a + 2$

6) $(5v + 7)(4v - 7)$

$20v^2 - 7v - 49$

7) $(-5n^2 + 3n + 2)(-8n^2 + 3n - 4)$

$40n^4 - 39n^3 + 13n^2 - 6n - 8$

8) $(7a + 9b)^2$

$49a^2 + 126ab + 81b^2$

Factor each completely.

9) $x^2 + 6x + 9 = 0$

$(x + 3)^2 = 0$

10) $x^2 + x - 6 = 0$

$(x + 3)(x - 2) = 0$

11) $x^3 + 4x^2 - 4x - 16 = 0$

$(x + 4)(x - 2)(x + 2) = 0$

12) $x^3 - 2x^2 + x - 2 = 0$

$(x - 2)(x^2 + 1) = 0$

13) $x^4 + 16x^2 + 64 = 0$

$(x^2 + 8)^2 = 0$

14) $x^4 + 11x^2 + 18 = 0$

$(x^2 + 2)(x^2 + 9) = 0$

15) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

16) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

17) $27x^4 + 125x = 0$

$x(3x + 5)(9x^2 - 15x + 25) = 0$

18) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $2 + 5k^3 + 8k$

2) $-10 + 6k^3 + 6k$

3) $-8n^4$

4) $-2k^6 - 7 - 3k + 9k^3 - 7k^4 - 10k^7$

Find each product.

5) $(3n - 4)(8n + 5)$

6) $(2b + 5)(7b + 5)$

7) $(3a^2 - 5a + 5)(-3a^2 - 6a + 7)$

8) $(-5x - 2y)^2$

Factor each completely.

9) $x^2 - 8x + 15 = 0$

10) $x^2 - x - 2 = 0$

11) $x^3 + 3x^2 + 2x + 6 = 0$

12) $x^3 + 2x^2 + 4x + 8 = 0$

13) $x^4 + x^2 - 42 = 0$

14) $x^4 - 14x^2 + 45 = 0$

15) $x^4 - 27x = 0$

16) $x^4 + x = 0$

17) $64x^4 + 27x = 0$

18) $27x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $2 + 5k^3 + 8k$

cubic trinomial

2) $-10 + 6k^3 + 6k$

cubic trinomial

3) $-8n^4$

quartic monomial

4) $-2k^6 - 7 - 3k + 9k^3 - 7k^4 - 10k^7$

seventh degree polynomial with six terms

Find each product.

5) $(3n - 4)(8n + 5)$

$24n^2 - 17n - 20$

6) $(2b + 5)(7b + 5)$

$14b^2 + 45b + 25$

7) $(3a^2 - 5a + 5)(-3a^2 - 6a + 7)$

$-9a^4 - 3a^3 + 36a^2 - 65a + 35$

8) $(-5x - 2y)^2$

$25x^2 + 20xy + 4y^2$

Factor each completely.

9) $x^2 - 8x + 15 = 0$

$(x - 5)(x - 3) = 0$

10) $x^2 - x - 2 = 0$

$(x - 2)(x + 1) = 0$

11) $x^3 + 3x^2 + 2x + 6 = 0$

$(x + 3)(x^2 + 2) = 0$

12) $x^3 + 2x^2 + 4x + 8 = 0$

$(x + 2)(x^2 + 4) = 0$

13) $x^4 + x^2 - 42 = 0$

$(x^2 + 7)(x^2 - 6) = 0$

14) $x^4 - 14x^2 + 45 = 0$

$(x^2 - 5)(x - 3)(x + 3) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $64x^4 + 27x = 0$

$x(4x + 3)(16x^2 - 12x + 9) = 0$

18) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $9a^3 - a^2$

2) $-x + 5$

3) $-2n^6 + n^2 + 6n$

4) $9n + 8n^2$

Find each product.

5) $(x + 2)(3x + 6)$

6) $(6v - 6)(2v + 5)$

7) $(8v^2 + 3v - 4)(5v^2 - v + 5)$

8) $(8x + 10y)(8x - 10y)$

Factor each completely.

9) $x^2 - x - 2 = 0$

10) $x^2 + 2x - 15 = 0$

11) $x^3 - 3x^2 + x - 3 = 0$

12) $x^3 + 3x^2 + 4x + 12 = 0$

13) $x^4 + x^2 - 42 = 0$

14) $x^4 - x^2 - 12 = 0$

15) $x^4 + 125x = 0$

16) $x^4 - 27x = 0$

17) $27x^4 - 64x = 0$

18) $125x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $9a^3 - a^2$

cubic binomial

2) $-x + 5$

linear binomial

3) $-2n^6 + n^2 + 6n$

sixth degree trinomial

4) $9n + 8n^2$

quadratic binomial

Find each product.

5) $(x + 2)(3x + 6)$

$3x^2 + 12x + 12$

6) $(6v - 6)(2v + 5)$

$12v^2 + 18v - 30$

7) $(8v^2 + 3v - 4)(5v^2 - v + 5)$

$40v^4 + 7v^3 + 17v^2 + 19v - 20$

8) $(8x + 10y)(8x - 10y)$

$64x^2 - 100y^2$

Factor each completely.

9) $x^2 - x - 2 = 0$

$(x - 2)(x + 1) = 0$

10) $x^2 + 2x - 15 = 0$

$(x + 5)(x - 3) = 0$

11) $x^3 - 3x^2 + x - 3 = 0$

$(x - 3)(x^2 + 1) = 0$

12) $x^3 + 3x^2 + 4x + 12 = 0$

$(x + 3)(x^2 + 4) = 0$

13) $x^4 + x^2 - 42 = 0$

$(x^2 + 7)(x^2 - 6) = 0$

14) $x^4 - x^2 - 12 = 0$

$(x - 2)(x + 2)(x^2 + 3) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

17) $27x^4 - 64x = 0$

$x(3x - 4)(9x^2 + 12x + 16) = 0$

18) $125x^4 - 8x = 0$

$x(5x - 2)(25x^2 + 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $7n^7$

2) $8n^7 - 8n^5 + 2n - n^2 - 5 + 10n^4$

3) $-2r^5 + 7 - r + r^6$

4) $-x$

Find each product.

5) $(8p + 1)(6p + 1)$

6) $(4v + 7)(5v - 6)$

7) $(4x^2 + 6x - 8)(6x^2 + 2x - 2)$

8) $(6x + 10y)(6x - 10y)$

Factor each completely.

9) $x^2 - x - 20 = 0$

10) $x^2 - 5x + 6 = 0$

11) $x^3 + 5x^2 - 4x - 20 = 0$

12) $x^3 - 3x^2 + 2x - 6 = 0$

13) $x^4 - 7x^2 - 18 = 0$

14) $x^4 + 15x^2 + 54 = 0$

15) $x^4 + 8x = 0$

16) $x^4 + 64x = 0$

17) $8x^4 + 125x = 0$

18) $125x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $7n^7$

seventh degree monomial

2) $8n^7 - 8n^5 + 2n - n^2 - 5 + 10n^4$

seventh degree polynomial with six terms

3) $-2r^5 + 7 - r + r^6$

sixth degree polynomial with four terms

4) $-x$

linear monomial

Find each product.

5) $(8p + 1)(6p + 1)$

$48p^2 + 14p + 1$

6) $(4v + 7)(5v - 6)$

$20v^2 + 11v - 42$

7) $(4x^2 + 6x - 8)(6x^2 + 2x - 2)$

$24x^4 + 44x^3 - 44x^2 - 28x + 16$

8) $(6x + 10y)(6x - 10y)$

$36x^2 - 100y^2$

Factor each completely.

9) $x^2 - x - 20 = 0$

$(x - 5)(x + 4) = 0$

10) $x^2 - 5x + 6 = 0$

$(x - 2)(x - 3) = 0$

11) $x^3 + 5x^2 - 4x - 20 = 0$

$(x + 5)(x - 2)(x + 2) = 0$

12) $x^3 - 3x^2 + 2x - 6 = 0$

$(x - 3)(x^2 + 2) = 0$

13) $x^4 - 7x^2 - 18 = 0$

$(x - 3)(x + 3)(x^2 + 2) = 0$

14) $x^4 + 15x^2 + 54 = 0$

$(x^2 + 6)(x^2 + 9) = 0$

15) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

16) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

17) $8x^4 + 125x = 0$

$x(2x + 5)(4x^2 - 10x + 25) = 0$

18) $125x^4 + 64x = 0$

$x(5x + 4)(25x^2 - 20x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $3 + 3k^2$

2) $3a^4 - 3a^6 + 2a + 4a^5 + 3 + 3a^2$

3) $10x$

4) -2

Find each product.

5) $(6x - 8)(4x - 3)$

6) $(x + 6)(8x + 1)$

7) $(3x^2 + x - 1)(x^2 + 8x - 2)$

8) $(10x + 10y)^2$

Factor each completely.

9) $x^2 + 8x + 15 = 0$

10) $x^2 + 6x + 5 = 0$

11) $x^3 - 2x^2 - 3x + 6 = 0$

12) $x^3 + 4x^2 + x + 4 = 0$

13) $x^4 + 6x^2 + 5 = 0$

14) $x^4 - 14x^2 + 49 = 0$

15) $x^4 + 8x = 0$

16) $x^4 - 125x = 0$

17) $125x^4 + 8x = 0$

18) $27x^4 + 64x = 0$

Name each polynomial by degree and number of terms.

1) $3 + 3k^2$

quadratic binomial

2) $3a^4 - 3a^6 + 2a + 4a^5 + 3 + 3a^2$

sixth degree polynomial with six terms

3) $10x$

linear monomial

4) -2

constant monomial

Find each product.

5) $(6x - 8)(4x - 3)$

$24x^2 - 50x + 24$

6) $(x + 6)(8x + 1)$

$8x^2 + 49x + 6$

7) $(3x^2 + x - 1)(x^2 + 8x - 2)$

$3x^4 + 25x^3 + x^2 - 10x + 2$

8) $(10x + 10y)^2$

$100x^2 + 200xy + 100y^2$

Factor each completely.

9) $x^2 + 8x + 15 = 0$

$(x + 5)(x + 3) = 0$

10) $x^2 + 6x + 5 = 0$

$(x + 1)(x + 5) = 0$

11) $x^3 - 2x^2 - 3x + 6 = 0$

$(x - 2)(x^2 - 3) = 0$

12) $x^3 + 4x^2 + x + 4 = 0$

$(x + 4)(x^2 + 1) = 0$

13) $x^4 + 6x^2 + 5 = 0$

$(x^2 + 1)(x^2 + 5) = 0$

14) $x^4 - 14x^2 + 49 = 0$

$(x^2 - 7)^2 = 0$

15) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

16) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

17) $125x^4 + 8x = 0$

$x(5x + 2)(25x^2 - 10x + 4) = 0$

18) $27x^4 + 64x = 0$

$x(3x + 4)(9x^2 - 12x + 16) = 0$

Name each polynomial by degree and number of terms.

1) $1 + 7n^3 - n^4 - 5n^2 - 8n$

2) $-4n^7$

3) $-1 + 10x^2 + 9x^5 + 2x^3 + 3x$

4) $-4x^6 + 3x$

Find each product.

5) $(6n - 6)(n + 6)$

6) $(8n + 7)(6n - 6)$

7) $(7m^2 + 5m - 2)(-6m^2 + 6m - 7)$

8) $(7a - 10b)^2$

Factor each completely.

9) $x^2 + x - 12 = 0$

10) $x^2 + x - 6 = 0$

11) $x^3 + x^2 + 2x + 2 = 0$

12) $x^3 + 2x^2 + 3x + 6 = 0$

13) $x^4 + 3x^2 - 18 = 0$

14) $x^4 + 7x^2 + 12 = 0$

15) $x^4 - 64x = 0$

16) $x^4 + 27x = 0$

17) $27x^4 + 64x = 0$

18) $27x^4 + 8x = 0$

Name each polynomial by degree and number of terms.

1) $1 + 7n^3 - n^4 - 5n^2 - 8n$

quartic polynomial with five terms

2) $-4n^7$

seventh degree monomial

3) $-1 + 10x^2 + 9x^5 + 2x^3 + 3x$

quintic polynomial with five terms

4) $-4x^6 + 3x$

sixth degree binomial

Find each product.

5) $(6n - 6)(n + 6)$

$6n^2 + 30n - 36$

6) $(8n + 7)(6n - 6)$

$48n^2 - 6n - 42$

7) $(7m^2 + 5m - 2)(-6m^2 + 6m - 7)$

$-42m^4 + 12m^3 - 7m^2 - 47m + 14$

8) $(7a - 10b)^2$

$49a^2 - 140ab + 100b^2$

Factor each completely.

9) $x^2 + x - 12 = 0$

$(x - 3)(x + 4) = 0$

10) $x^2 + x - 6 = 0$

$(x + 3)(x - 2) = 0$

11) $x^3 + x^2 + 2x + 2 = 0$

$(x + 1)(x^2 + 2) = 0$

12) $x^3 + 2x^2 + 3x + 6 = 0$

$(x + 2)(x^2 + 3) = 0$

13) $x^4 + 3x^2 - 18 = 0$

$(x^2 - 3)(x^2 + 6) = 0$

14) $x^4 + 7x^2 + 12 = 0$

$(x^2 + 3)(x^2 + 4) = 0$

15) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

16) $x^4 + 27x = 0$

$x(x + 3)(x^2 - 3x + 9) = 0$

17) $27x^4 + 64x = 0$

$x(3x + 4)(9x^2 - 12x + 16) = 0$

18) $27x^4 + 8x = 0$

$x(3x + 2)(9x^2 - 6x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $-2m^2$

2) $-5a - 10$

3) $5n^3 - 7n$

4) $3n^7 - 3n^4$

Find each product.

5) $(7x + 6)(6x + 1)$

6) $(5r + 8)(5r - 4)$

7) $(8x^2 - 8x - 2)(2x^2 - 4x + 1)$

8) $(-10x^2 - 2y)(-10x^2 + 2y)$

Factor each completely.

9) $x^2 + 5x + 6 = 0$

10) $x^2 + 3x - 4 = 0$

11) $x^3 - 2x^2 + 4x - 8 = 0$

12) $x^3 - x^2 + 3x - 3 = 0$

13) $x^4 + 4x^2 + 3 = 0$

14) $x^4 - 5x^2 - 36 = 0$

15) $x^4 + 8x = 0$

16) $x^4 - x = 0$

17) $8x^4 + 27x = 0$

18) $-125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $-2m^2$

quadratic monomial

2) $-5a - 10$

linear binomial

3) $5n^3 - 7n$

cubic binomial

4) $3n^7 - 3n^4$

seventh degree binomial

Find each product.

5) $(7x + 6)(6x + 1)$

$42x^2 + 43x + 6$

6) $(5r + 8)(5r - 4)$

$25r^2 + 20r - 32$

7) $(8x^2 - 8x - 2)(2x^2 - 4x + 1)$

$16x^4 - 48x^3 + 36x^2 - 2$

8) $(-10x^2 - 2y)(-10x^2 + 2y)$

$100x^4 - 4y^2$

Factor each completely.

9) $x^2 + 5x + 6 = 0$

$(x + 2)(x + 3) = 0$

10) $x^2 + 3x - 4 = 0$

$(x - 1)(x + 4) = 0$

11) $x^3 - 2x^2 + 4x - 8 = 0$

$(x - 2)(x^2 + 4) = 0$

12) $x^3 - x^2 + 3x - 3 = 0$

$(x - 1)(x^2 + 3) = 0$

13) $x^4 + 4x^2 + 3 = 0$

$(x^2 + 1)(x^2 + 3) = 0$

14) $x^4 - 5x^2 - 36 = 0$

$(x - 3)(x + 3)(x^2 + 4) = 0$

15) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

16) $x^4 - x = 0$

$x(x - 1)(x^2 + x + 1) = 0$

17) $8x^4 + 27x = 0$

$x(2x + 3)(4x^2 - 6x + 9) = 0$

18) $-125x^4 + 27x = 0$

$x(5x - 3)(-25x^2 - 15x - 9) = 0$

Name each polynomial by degree and number of terms.

1) $x + 10$

2) $-9x^6$

3) $-x^3 + 10x^4 - 9x + 10 + 7x^2$

4) $9n^5 - 3n + 4n^3$

Find each product.

5) $(6p + 2)(4p - 3)$

6) $(6a - 4)(6a - 8)$

7) $(-5n^2 - 3n + 8)(-7n^2 + 7n + 2)$

8) $(5x + y)(5x - y)$

Factor each completely.

9) $x^2 + 4x + 3 = 0$

10) $x^2 + 10x + 25 = 0$

11) $x^3 + 2x^2 - 5x - 10 = 0$

12) $x^3 - 5x^2 + x - 5 = 0$

13) $x^4 + 4x^2 - 12 = 0$

14) $x^4 - 12x^2 + 35 = 0$

15) $x^4 + 64x = 0$

16) $x^4 + 125x = 0$

17) $125x^4 - 8x = 0$

18) $-27x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $x + 10$

linear binomial

2) $-9x^6$

sixth degree monomial

3) $-x^3 + 10x^4 - 9x + 10 + 7x^2$

quartic polynomial with five terms

4) $9n^5 - 3n + 4n^3$

quintic trinomial

Find each product.

5) $(6p + 2)(4p - 3)$

$24p^2 - 10p - 6$

6) $(6a - 4)(6a - 8)$

$36a^2 - 72a + 32$

7) $(-5n^2 - 3n + 8)(-7n^2 + 7n + 2)$

$35n^4 - 14n^3 - 87n^2 + 50n + 16$

8) $(5x + y)(5x - y)$

$25x^2 - y^2$

Factor each completely.

9) $x^2 + 4x + 3 = 0$

$(x + 1)(x + 3) = 0$

10) $x^2 + 10x + 25 = 0$

$(x + 5)^2 = 0$

11) $x^3 + 2x^2 - 5x - 10 = 0$

$(x + 2)(x^2 - 5) = 0$

12) $x^3 - 5x^2 + x - 5 = 0$

$(x - 5)(x^2 + 1) = 0$

13) $x^4 + 4x^2 - 12 = 0$

$(x^2 - 2)(x^2 + 6) = 0$

14) $x^4 - 12x^2 + 35 = 0$

$(x^2 - 5)(x^2 - 7) = 0$

15) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $125x^4 - 8x = 0$

$x(5x - 2)(25x^2 + 10x + 4) = 0$

18) $-27x^4 + 125x = 0$

$x(3x - 5)(-9x^2 - 15x - 25) = 0$

Name each polynomial by degree and number of terms.

1) $5x^6 + 5x^5 + 4x^3 + 5x^7 - 2 + 3x^4$

2) $-6p - 7 - 10p^4 - p^3 - 2p^2$

3) $4v + 4v^3$

4) $-6k^4$

Find each product.

5) $(7x - 3)(7x + 5)$

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

7) $(-8k^2 - 8k + 4)(-k^2 + 4k + 4)$

8) $(4x^3 - 6y^2)(4x^3 + 6y^2)$

Factor each completely.

9) $x^2 + 5x + 6 = 0$

10) $x^3 + 10x^2 + 25x = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

12) $x^3 - x^2 - 2x + 2 = 0$

13) $x^4 - 18x^2 + 81 = 0$

14) $x^4 - 4x^2 - 12 = 0$

15) $x^4 - 125x = 0$

16) $x^4 + x = 0$

17) $27x^4 - 8x = 0$

18) $8x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) $5x^6 + 5x^5 + 4x^3 + 5x^7 - 2 + 3x^4$

seventh degree polynomial with six terms

2) $-6p - 7 - 10p^4 - p^3 - 2p^2$

quartic polynomial with five terms

3) $4v + 4v^3$

cubic binomial

4) $-6k^4$

quartic monomial

Find each product.

5) $(7x - 3)(7x + 5)$

$49x^2 + 14x - 15$

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

$40x^2 - 68x + 24$

7) $(-8k^2 - 8k + 4)(-k^2 + 4k + 4)$

$8k^4 - 24k^3 - 68k^2 - 16k + 16$

8) $(4x^3 - 6y^2)(4x^3 + 6y^2)$

$16x^6 - 36y^4$

Factor each completely.

9) $x^2 + 5x + 6 = 0$

$(x + 3)(x + 2) = 0$

10) $x^3 + 10x^2 + 25x = 0$

$x(x + 5)^2 = 0$

11) $x^3 + 5x^2 + 3x + 15 = 0$

$(x + 5)(x^2 + 3) = 0$

12) $x^3 - x^2 - 2x + 2 = 0$

$(x - 1)(x^2 - 2) = 0$

13) $x^4 - 18x^2 + 81 = 0$

$(x - 3)^2 \cdot (x + 3)^2 = 0$

14) $x^4 - 4x^2 - 12 = 0$

$(x^2 + 2)(x^2 - 6) = 0$

15) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

18) $8x^4 + 125x = 0$

$x(2x + 5)(4x^2 - 10x + 25) = 0$

Name each polynomial by degree and number of terms.

1) $5b^4 - 6 - 10b^2$

2) $-4k + 5k^2$

3) $-7x^3 + 7x^6 + 1 + 7x^2 - 6x$

4) $-10x^4 + 2$

Find each product.

5) $(6m + 4)(7m - 8)$

6) $(5b - 1)(3b + 1)$

7) $(-7n^2 - 5n + 6)(3n^2 - 2n - 1)$

8) $(-9u - 2v^2)^2$

Factor each completely.

9) $x^2 + 10x + 25 = 0$

10) $x^2 - 8x + 15 = 0$

11) $x^3 - x^2 - 4x + 4 = 0$

12) $x^3 + 3x^2 - 5x - 15 = 0$

13) $x^4 + 12x^2 + 35 = 0$

14) $x^4 + 14x^2 + 45 = 0$

15) $x^4 + 64x = 0$

16) $x^4 - 125x = 0$

17) $8x^4 + 125x = 0$

18) $64x^4 - 125x = 0$

Name each polynomial by degree and number of terms.

1) $5b^4 - 6 - 10b^2$

quartic trinomial

2) $-4k + 5k^2$

quadratic binomial

3) $-7x^3 + 7x^6 + 1 + 7x^2 - 6x$

sixth degree polynomial with five terms

4) $-10x^4 + 2$

quartic binomial

Find each product.

5) $(6m + 4)(7m - 8)$

$42m^2 - 20m - 32$

6) $(5b - 1)(3b + 1)$

$15b^2 + 2b - 1$

7) $(-7n^2 - 5n + 6)(3n^2 - 2n - 1)$

$-21n^4 - n^3 + 35n^2 - 7n - 6$

8) $(-9u - 2v^2)^2$

$81u^2 + 36uv^2 + 4v^4$

Factor each completely.

9) $x^2 + 10x + 25 = 0$

$(x + 5)^2 = 0$

10) $x^2 - 8x + 15 = 0$

$(x - 3)(x - 5) = 0$

11) $x^3 - x^2 - 4x + 4 = 0$

$(x - 1)(x - 2)(x + 2) = 0$

12) $x^3 + 3x^2 - 5x - 15 = 0$

$(x + 3)(x^2 - 5) = 0$

13) $x^4 + 12x^2 + 35 = 0$

$(x^2 + 5)(x^2 + 7) = 0$

14) $x^4 + 14x^2 + 45 = 0$

$(x^2 + 5)(x^2 + 9) = 0$

15) $x^4 + 64x = 0$

$x(x + 4)(x^2 - 4x + 16) = 0$

16) $x^4 - 125x = 0$

$x(x - 5)(x^2 + 5x + 25) = 0$

17) $8x^4 + 125x = 0$

$x(2x + 5)(4x^2 - 10x + 25) = 0$

18) $64x^4 - 125x = 0$

$x(4x - 5)(16x^2 + 20x + 25) = 0$

Name each polynomial by degree and number of terms.

1) $v + 6v^2 + 2v^5 - v^4 + 5v^3$

2) $2 + 2v$

3) $5a^2$

4) $4 - 2n$

Find each product.

5) $(3r + 1)(2r - 3)$

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

7) $(2v^2 + 2v - 8)(6v^2 - 7v + 4)$

8) $(3v + 2u^2)(3v - 2u^2)$

Factor each completely.

9) $x^2 + 3x + 2 = 0$

10) $x^2 - 7x + 10 = 0$

11) $x^3 - 2x^2 + 3x - 6 = 0$

12) $x^3 - x^2 - 3x + 3 = 0$

13) $x^4 + 7x^2 + 12 = 0$

14) $x^4 + x^2 - 72 = 0$

15) $x^4 + 8x = 0$

16) $x^4 - 27x = 0$

17) $-125x^4 + 64x = 0$

18) $27x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $v + 6v^2 + 2v^5 - v^4 + 5v^3$

quintic polynomial with five terms

2) $2 + 2v$

linear binomial

3) $5a^2$

quadratic monomial

4) $4 - 2n$

linear binomial

Find each product.

5) $(3r + 1)(2r - 3)$

$6r^2 - 7r - 3$

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

$8x^2 + 46x - 12$

7) $(2v^2 + 2v - 8)(6v^2 - 7v + 4)$

$12v^4 - 2v^3 - 54v^2 + 64v - 32$

8) $(3v + 2u^2)(3v - 2u^2)$

$9v^2 - 4u^4$

Factor each completely.

9) $x^2 + 3x + 2 = 0$

$(x + 1)(x + 2) = 0$

10) $x^2 - 7x + 10 = 0$

$(x - 2)(x - 5) = 0$

11) $x^3 - 2x^2 + 3x - 6 = 0$

$(x - 2)(x^2 + 3) = 0$

12) $x^3 - x^2 - 3x + 3 = 0$

$(x - 1)(x^2 - 3) = 0$

13) $x^4 + 7x^2 + 12 = 0$

$(x^2 + 3)(x^2 + 4) = 0$

14) $x^4 + x^2 - 72 = 0$

$(x^2 + 9)(x^2 - 8) = 0$

15) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

16) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

17) $-125x^4 + 64x = 0$

$x(5x - 4)(-25x^2 - 20x - 16) = 0$

18) $27x^4 - 8x = 0$

$x(3x - 2)(9x^2 + 6x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $-7k^3$

2) $-6n^4 + 2n^3$

3) $-2m^4$

4) 7

Find each product.

5) $(3x - 4)(3x + 1)$

6) $(3a + 2)(4a + 1)$

7) $(4r^2 + 4r + 8)(8r^2 + r + 2)$

8) $(-8m - 7n)(-8m + 7n)$

Factor each completely.

9) $x^2 - 7x + 12 = 0$

10) $x^2 - 4x + 3 = 0$

11) $x^3 - 2x^2 + x - 2 = 0$

12) $x^3 + 3x^2 + 4x + 12 = 0$

13) $x^4 - 2x^2 + 1 = 0$

14) $x^4 + 8x^2 - 9 = 0$

15) $x^4 + 8x = 0$

16) $x^4 + x = 0$

17) $125x^4 - 64x = 0$

18) $125x^4 - 8x = 0$

Name each polynomial by degree and number of terms.

1) $-7k^3$

cubic monomial

2) $-6n^4 + 2n^3$

quartic binomial

3) $-2m^4$

quartic monomial

4) 7

constant monomial

Find each product.

5) $(3x - 4)(3x + 1)$

$9x^2 - 9x - 4$

6) $(3a + 2)(4a + 1)$

$12a^2 + 11a + 2$

7) $(4r^2 + 4r + 8)(8r^2 + r + 2)$

$32r^4 + 36r^3 + 76r^2 + 16r + 16$

8) $(-8m - 7n)(-8m + 7n)$

$64m^2 - 49n^2$

Factor each completely.

9) $x^2 - 7x + 12 = 0$

$(x - 4)(x - 3) = 0$

10) $x^2 - 4x + 3 = 0$

$(x - 3)(x - 1) = 0$

11) $x^3 - 2x^2 + x - 2 = 0$

$(x - 2)(x^2 + 1) = 0$

12) $x^3 + 3x^2 + 4x + 12 = 0$

$(x + 3)(x^2 + 4) = 0$

13) $x^4 - 2x^2 + 1 = 0$

$(x - 1)^2 \cdot (x + 1)^2 = 0$

14) $x^4 + 8x^2 - 9 = 0$

$(x^2 + 9)(x - 1)(x + 1) = 0$

15) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

16) $x^4 + x = 0$

$x(x + 1)(x^2 - x + 1) = 0$

17) $125x^4 - 64x = 0$

$x(5x - 4)(25x^2 + 20x + 16) = 0$

18) $125x^4 - 8x = 0$

$x(5x - 2)(25x^2 + 10x + 4) = 0$

Name each polynomial by degree and number of terms.

1) $5x - x^2 + 1$

2) $r^2 + 10r - 4r^3$

3) $9b^7$

4) $-2 - k^3 + 4k - 3k^2$

Find each product.

5) $(7x + 3)(6x - 4)$

6) $(7k + 3)(3k - 8)$

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

8) $(-7m + 5n)^2$

Factor each completely.

9) $x^2 + x - 6 = 0$

10) $x^2 - 5x + 4 = 0$

11) $x^3 - 4x^2 - 2x + 8 = 0$

12) $x^3 + 2x^2 - 4x - 8 = 0$

13) $x^4 - 8x^2 - 9 = 0$

14) $x^4 - 10x^2 + 24 = 0$

15) $x^4 + 125x = 0$

16) $x^4 - 64x = 0$

17) $-8x^4 + 125x = 0$

18) $64x^4 - 125x = 0$

Name each polynomial by degree and number of terms.

1) $5x - x^2 + 1$

quadratic trinomial

2) $r^2 + 10r - 4r^3$

cubic trinomial

3) $9b^7$

seventh degree monomial

4) $-2 - k^3 + 4k - 3k^2$

cubic polynomial with four terms

Find each product.

5) $(7x + 3)(6x - 4)$

$42x^2 - 10x - 12$

6) $(7k + 3)(3k - 8)$

$21k^2 - 47k - 24$

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

$28x^4 + 9x^3 + 54x^2 + 6x + 35$

8) $(-7m + 5n)^2$

$49m^2 - 70mn + 25n^2$

Factor each completely.

9) $x^2 + x - 6 = 0$

$(x - 2)(x + 3) = 0$

10) $x^2 - 5x + 4 = 0$

$(x - 1)(x - 4) = 0$

11) $x^3 - 4x^2 - 2x + 8 = 0$

$(x - 4)(x^2 - 2) = 0$

12) $x^3 + 2x^2 - 4x - 8 = 0$

$(x + 2)^2(x - 2) = 0$

13) $x^4 - 8x^2 - 9 = 0$

$(x - 3)(x + 3)(x^2 + 1) = 0$

14) $x^4 - 10x^2 + 24 = 0$

$(x^2 - 6)(x - 2)(x + 2) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $-8x^4 + 125x = 0$

$x(2x - 5)(-4x^2 - 10x - 25) = 0$

18) $64x^4 - 125x = 0$

$x(4x - 5)(16x^2 + 20x + 25) = 0$

Name each polynomial by degree and number of terms.

1) v^2

2) $6b^3 + 2b + 8 + 3b^4$

3) $-9x^2$

4) $-3x^2 - 7x^3 + x$

Find each product.

5) $(2p - 3)(5p + 7)$

6) $(8p - 4)(6p - 8)$

7) $(6x^2 + x - 7)(-8x^2 - 4x - 3)$

8) $(-3v - 10u)^2$

Factor each completely.

9) $x^2 - x - 20 = 0$

10) $x^2 - 2x - 8 = 0$

11) $x^3 - x^2 - 4x + 4 = 0$

12) $x^3 - 2x^2 + 4x - 8 = 0$

13) $x^4 - 7x^2 - 8 = 0$

14) $x^4 - 4 = 0$

15) $x^4 + 125x = 0$

16) $x^4 - 64x = 0$

17) $-8x^4 + 125x = 0$

18) $64x^4 + 125x = 0$

Name each polynomial by degree and number of terms.

1) v^2

quadratic monomial

2) $6b^3 + 2b + 8 + 3b^4$

quartic polynomial with four terms

3) $-9x^2$

quadratic monomial

4) $-3x^2 - 7x^3 + x$

cubic trinomial

Find each product.

5) $(2p - 3)(5p + 7)$

$10p^2 - p - 21$

6) $(8p - 4)(6p - 8)$

$48p^2 - 88p + 32$

7) $(6x^2 + x - 7)(-8x^2 - 4x - 3)$

$-48x^4 - 32x^3 + 34x^2 + 25x + 21$

8) $(-3v - 10u)^2$

$9v^2 + 60vu + 100u^2$

Factor each completely.

9) $x^2 - x - 20 = 0$

$(x + 4)(x - 5) = 0$

10) $x^2 - 2x - 8 = 0$

$(x + 2)(x - 4) = 0$

11) $x^3 - x^2 - 4x + 4 = 0$

$(x - 1)(x - 2)(x + 2) = 0$

12) $x^3 - 2x^2 + 4x - 8 = 0$

$(x - 2)(x^2 + 4) = 0$

13) $x^4 - 7x^2 - 8 = 0$

$(x^2 + 1)(x^2 - 8) = 0$

14) $x^4 - 4 = 0$

$(x^2 + 2)(x^2 - 2) = 0$

15) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

16) $x^4 - 64x = 0$

$x(x - 4)(x^2 + 4x + 16) = 0$

17) $-8x^4 + 125x = 0$

$x(2x - 5)(-4x^2 - 10x - 25) = 0$

18) $64x^4 + 125x = 0$

$x(4x + 5)(16x^2 - 20x + 25) = 0$

Name each polynomial by degree and number of terms.

1) $5p^2$

2) -3

3) $-8 + 6v^2$

4) $-7n^7 + 10n^2 + 7n^6$

Find each product.

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

6) $(8n - 1)(3n - 3)$

7) $(-5x^2 - 6x + 4)(-8x^2 + 6x + 6)$

8) $(-6x + 3y)(-6x - 3y)$

Factor each completely.

9) $x^2 - 6x + 5 = 0$

10) $x^3 - 16x = 0$

11) $x^3 + x^2 - 4x - 4 = 0$

12) $x^3 - 2x^2 + x - 2 = 0$

13) $x^4 + 4x^2 - 5 = 0$

14) $x^4 + 4x^2 - 12 = 0$

15) $x^4 - 27x = 0$

16) $x^4 - 8x = 0$

17) $27x^4 + 64x = 0$

18) $125x^4 + 27x = 0$

Name each polynomial by degree and number of terms.

1) $5p^2$

quadratic monomial

2) -3

constant monomial

3) $-8 + 6v^2$

quadratic binomial

4) $-7n^7 + 10n^2 + 7n^6$

seventh degree trinomial

Find each product.

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

$8b^2 - 3b - 5$

6) $(8n - 1)(3n - 3)$

$24n^2 - 27n + 3$

7) $(-5x^2 - 6x + 4)(-8x^2 + 6x + 6)$

$40x^4 + 18x^3 - 98x^2 - 12x + 24$

8) $(-6x + 3y)(-6x - 3y)$

$36x^2 - 9y^2$

Factor each completely.

9) $x^2 - 6x + 5 = 0$

$(x - 5)(x - 1) = 0$

10) $x^3 - 16x = 0$

$x(x - 4)(x + 4) = 0$

11) $x^3 + x^2 - 4x - 4 = 0$

$(x + 1)(x - 2)(x + 2) = 0$

12) $x^3 - 2x^2 + x - 2 = 0$

$(x - 2)(x^2 + 1) = 0$

13) $x^4 + 4x^2 - 5 = 0$

$(x^2 + 5)(x - 1)(x + 1) = 0$

14) $x^4 + 4x^2 - 12 = 0$

$(x^2 + 6)(x^2 - 2) = 0$

15) $x^4 - 27x = 0$

$x(x - 3)(x^2 + 3x + 9) = 0$

16) $x^4 - 8x = 0$

$x(x - 2)(x^2 + 2x + 4) = 0$

17) $27x^4 + 64x = 0$

$x(3x + 4)(9x^2 - 12x + 16) = 0$

18) $125x^4 + 27x = 0$

$x(5x + 3)(25x^2 - 15x + 9) = 0$

Name each polynomial by degree and number of terms.

1) $5v^7$

2) $-m^4$

3) $8b^3 + 4b^2 + 7b^6 - 10b^5 + 4 - 6b$

4) -7

Find each product.

5) $(8n + 3)(n - 7)$

6) $(8a + 4)(5a + 7)$

7) $(-6v^2 - v + 2)(4v^2 + 7v + 5)$

8) $(-y^2 - 4x)(-y^2 + 4x)$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

10) $x^2 - x - 12 = 0$

11) $x^3 + 3x^2 + 5x + 15 = 0$

12) $x^3 - x^2 - 2x + 2 = 0$

13) $x^4 + 7x^2 + 6 = 0$

14) $x^4 - 3x^2 - 10 = 0$

15) $x^4 + 8x = 0$

16) $x^4 + 125x = 0$

17) $8x^4 - 27x = 0$

18) $125x^4 - 64x = 0$

Name each polynomial by degree and number of terms.

1) $5v^7$

seventh degree monomial

2) $-m^4$

quartic monomial

3) $8b^3 + 4b^2 + 7b^6 - 10b^5 + 4 - 6b$

sixth degree polynomial with six terms

4) -7

constant monomial

Find each product.

5) $(8n + 3)(n - 7)$

$8n^2 - 53n - 21$

6) $(8a + 4)(5a + 7)$

$40a^2 + 76a + 28$

7) $(-6v^2 - v + 2)(4v^2 + 7v + 5)$

$-24v^4 - 46v^3 - 29v^2 + 9v + 10$

8) $(-y^2 - 4x)(-y^2 + 4x)$

$y^4 - 16x^2$

Factor each completely.

9) $x^2 + 6x + 8 = 0$

$(x + 4)(x + 2) = 0$

10) $x^2 - x - 12 = 0$

$(x + 3)(x - 4) = 0$

11) $x^3 + 3x^2 + 5x + 15 = 0$

$(x + 3)(x^2 + 5) = 0$

12) $x^3 - x^2 - 2x + 2 = 0$

$(x - 1)(x^2 - 2) = 0$

13) $x^4 + 7x^2 + 6 = 0$

$(x^2 + 6)(x^2 + 1) = 0$

14) $x^4 - 3x^2 - 10 = 0$

$(x^2 + 2)(x^2 - 5) = 0$

15) $x^4 + 8x = 0$

$x(x + 2)(x^2 - 2x + 4) = 0$

16) $x^4 + 125x = 0$

$x(x + 5)(x^2 - 5x + 25) = 0$

17) $8x^4 - 27x = 0$

$x(2x - 3)(4x^2 + 6x + 9) = 0$

18) $125x^4 - 64x = 0$

$x(5x - 4)(25x^2 + 20x + 16) = 0$