

6-4 Polynomials_hw

Arrange each polynomial in descending order.

1. $x^5 + x + 6x^3 + 1 + 2x^2$

2. $3 + 2x^2 - 5x^6 - 2x^3 + 3x$

3. $5x^3 + 15x^9 + x - x^2 + 7x^8$

4. $9x - 5 + 6x^3 - 5x^4 + x^5$

5. $8y^3 - 7y^2 + 9y^6 - 5y^8 - y^7$

6. $p^8 - 4 + p + p^2 - 7p^4$

Identify the terms. Give the coefficient of each term.

15. $-4m^9 + 6m - 1$

16. $a^5 + 4a^3 - 3a^2 + a$

17. $2x^2y + 5xy^2 - 6y^4$

18. $m^4n^3 - 3m^3n^2 + 6m^2n^4$

19. $8p^3 + 2pq - 4$

20. $a^4b^6 - 2a^6b^4$

21. $-3n^6 + 3n - 3$

22. $x^6 - 2x^5 + 3x^2 - 2x - 4$

23. $x^8y^6 - 2x^6y^6 + 8x^4y^7 - 4xy^8$

24. $12m^{12} - 8m^{11}n^{10} + 5m^5n^{11} - m^4n^{12} + n^{14}$

Answers to 6-4 Polynomials_hw

1. $x^5 + 6x^3 + 2x^2 + x + 1$

2. $-5x^6 - 2x^3 + 2x^2 + 3x + 3$

3. $15x^9 + 7x^8 + 5x^3 - x^2 + x$

4. $x^5 - 5x^4 + 6x^3 + 9x - 5$

5. $-5y^8 - y^7 + 9y^6 + 8y^3 - 7y^2$

15. Terms: $-4m^9, 6m, -1$

Coefficients: $-4, 6, -1$

16. Terms: $a^5, 4a^3, -3a^2, a$

Coefficients: $1, 4, -3, 1$

17. Terms: $2x^2y, 5xy^2, -6y^4$

Coefficients: $2, 5, -6$

18. Terms: $m^4n^3, -3m^3n^2, 6m^2n^4$

Coefficients: $1, -3, 6$

19. Terms: $8p^3, 2pq, -4$

Coefficients: $8, 2, -4$

20. Terms: $a^4b^6, -2a^6b^4$

Coefficients: $1, -2$

21. Terms: $-3n^6, 3n, -3$

Coefficients: $-3, 3, -3$

22. Terms: $x^6, -2x^5, 3x^2, -2x, -4$

Coefficients: $1, -2, 3, -2, -4$

23. Terms:

$x^8y^6, -2x^6y^6, 8x^4y^7, -4xy^8$

Coefficients: $1, -2, 8, -4$

24. Terms:

$12m^{12}, -8m^{11}n^{10}, 5m^5n^{11},$

$-m^4n^{12}, n^{14}$

Coefficients: $12, -8, 5, -1, 1$