
Exercises 15-1

Write each polynomial in standard form.

1. $x^2 - 2 + x$

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

3. $m - 3 + m^3 + 3m^2$

4. $-x^2 + 8x - 1 + x^3$

5. $4z^2 - 6z + 3z^4 - 7 + 8z^3$

6. $2a^4 - 3 + 2a^2 - 13a - 7a^3$

7. $c^3 - 5c - 2 + c^4$

8. $-z^7 + 5z^3 + 2z - z^5$

9. $k^2 - 8k^4 - 6 + 3k^3$

10. $n^3 - 1 + 2n^6 + 4n^4 + 3n^7$

Simplify.

11. $2x^2 + x + 2 + 3x - x^2 + 5$

12. $-9d^3 - 4d^2 - d^3 + 4 - 2d^2$

13. $4e - 3d^2 + 4e^2 + 7e - 20$

14. $r^3 - 7r^2 - 6r^3 - 5 + 7$

15. $x^2 + 6x + 7 - 5x^2 + 5 + 3x$

16. $2w^3 - 6w^2 + 7w^3 - 7$

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Simplify.

17. $-3x^2 - 6x - 2 - 5x - 4x^2 + 3$

18. $2g^2 - 4 + 7g + 5g^2 + 1$

19. $8w^3 + 6w^2 - 12w - 2w^2 + 1$

20. $-x^3 + 9x - 3x^3 - 6x^2 + 2$

21. $x^2 - 2x + 1 + 3x^2 + 4x + x^5$

22. $-x^2 + 8 + 3x^4 - 9x + x^4$

23. $2a^4 - 6a^3 - 2a^2 - 4a^3 - 5a^2$

24. $x^3 - x^2 + 7 + 3x^3 - 11 + x^2$

25. $-x^3 + 2x - 3 - 4x^3 - 2x + 3$

26. $6 - 2a^4 + a^2 - 1 + 6a^4 - a^2$

Write each polynomial in standard form for the variable in color.

27. $a^2b + ab^3 + a^2b^2 + 4; b$

28. $m^2n^3 - mn + mn^4 + m^2n^2 - 1; n$

29. $x^3y^3 - 4 + x^2y - xy^2; y$

30. $c^4d - cd^4 + c^2d^2 + 6 - c^3d^3; d$

31. $a^3b^2 + ab^3 - a^2b - 4; a$

32. $xz^3 - x^3z + 9 - x^2z^2; x$

33. $a^4c^2 + a^3c^4 - a^2c + ac^3; c$

34. $mn^4 - m^2n^3 - m^3n^2 + m^4n; m$