

Introduction to College Algebra

Topic: Factorization — Exercise 1

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July 30, 2025

1. Factorization of the Difference of Two Squares

1. $x^2 - 16$
2. $9a^2 - 25b^2$
3. $4x^2 - 49y^2$
4. $36p^2 - 1$
5. $81m^2 - 100n^2$
6. $64x^2 - 144$
7. $121a^2 - 49b^2$
8. $144x^4 - 81y^4$

2. Factorization of the Sum and Difference of Two Cubes

1. $x^3 + 27$
2. $64y^3 - 125$
3. $a^3 - 8$
4. $125 - x^3$
5. $27a^3 + b^3$
6. $8x^3 - 27y^3$
7. $x^3 + 64$
8. $216p^3 - 343q^3$

3. Factorization of Quadratic Expressions

1. $x^2 + 7x + 10$
2. $a^2b - 5ab + 6b$
3. $x^2 - 9x + 20$
4. $2x^2 + 3x - 2$

5. $3x^2 - 2x - 1$

6. $4y^2 + 8y + 3$

7. $6x^2 + 11x + 3$

8. $5x^2 - 13xy + 6y^2$