

BC Math 9 Operations with Polynomials

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- Variables, degree, number of terms, and coefficients, including the constant term
- $(x^2 + 2x - 4) + (2x^2 - 3x - 4)$
- $(5x - 7) - (2x + 3)$
- $2x(x + 7)$
- $(15k^2 - 10k) \div (5k)$
- Using algebra tiles
- Operations with polynomials of degree less than or equal to 2
- $3x(x - 4) = 3x^2 - 12x$

1. $x + 2x$

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

3. $2x(x - 5)$

4. $(3x - 2) - (5x + 1)$

5. $-2(3x^2 - 5x + 1)$

6. $(x^2 + 3x - 2) - (2x^2 - 5x - 7)$

7. $\frac{4x^2}{2x}$

8. $\frac{3}{4}x + \frac{x}{4}$

9. $\frac{x}{2} - \frac{x}{5}$

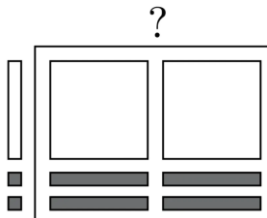
$$10. 2t - \frac{3t}{4}$$

$$11. (15k^2 - 10k) \div 5k$$

$$12. \frac{-15xy^3 - 10x^2y^2}{5xy^2}$$

$$13. -\frac{4a^2b - 8ab^3}{2ab}$$

14. Complete the following algebra tile diagram:



15. The polynomial

$$P(x) = 6x^5 + 5x^4 - 3x^2 + x^7 + 2$$

- a. How many terms are in this polynomial?

- b. What is the coefficient of the x^5 term?

- c. Find the degree of this polynomial

- d. Find the constant term

16. Enrichment: What is the degree of the following polynomial? $5x^3y^2 + 3x - 2$