

Subtracting Polynomials in Multiple Variables

This follows very closely from addition of polynomials in multiple variables. Be careful that both the variables and the corresponding exponents match up exactly.

Example:

$$\begin{aligned} & (x^2y + 2xy - 4) - (xy^2 - 3xy + 2) \\ &= x^2y - xy - 6 - xy^2 \end{aligned}$$

Now, try these questions:

1. $(x^2 + xy) - (-2xy + x^2y) =$

2. $(-3x - x^2z^2) - (4yz + 3x) =$

3. $(2x^2y + 3) - (x - 3y^2x) =$

4. $(10 - 4ab + a^2b + b) - (3a + 3b) =$

5. $(-xy^2 + 3k + 4) - (2kx - k^2 - 3 + xy^2) =$

6. $(-x + 2ab - a^3b) - (x + ba + b^3a) =$

7. $(4ab + 2b^2 - 2a^2) - (2ba + a^2b^2) =$

8. $(4x + 2 - 3yx^2) - (-4yx + 2 - 2x^2y) =$

9. $(-6x^2y + xz - 3yz) - (2y^2z - 3yz) =$

10. $(4 + xyz - 3x^2y) - (x^2yz - 2y^2x - 3x^2y) =$

<http://math.about.com>