

# Subtraction of Polynomials

Bottom of Form

Subtraction of polynomials can be solved in two methods.

**Follow the following steps to solve the subtraction of polynomials in the second method:**

Re-write the given expressions in two lines such that the lower line is the expression to be subtracted and like terms of both the expressions are one below the other.

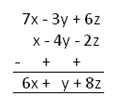
Change the sign of each term in the lower line i.e. change the sign of each term of the expression to be subtracted.

Combine the terms column-wise with new signs assigned to the terms of lower line.

**For example:**

**1. Subtract: x – 4y – 2z from 7x – 3y + 6z**

First we will arrange the expressions in two lines such that the lower line of the expression is to be subtracted from the other, placing the like terms in the same column one below the other.

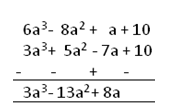


Now by changing the sign (positive becomes negative and negative becomes positive) of each term in the lower line i.e. change the sign of each term of the expression to be subtracted (x – 4y – 2z).

Therefore, the required answer is 6x +   y + 8z.

**2. Subtract: 3a3 + 5a2 – 7a + 10 from 6a3 - 8a2 + a + 10**

First we will arrange the expressions in two lines such that the lower line of the expression is to be subtracted from the other, placing the like terms in the same column one below the other.



Now by changing the sign (positive becomes negative and negative becomes positive) of each term in the lower line i.e. change the sign of each term of the expression to be subtracted (3a3 + 5a2 – 7a + 10). Therefore, the required answer is 3a3 - 13a2 + 8a.