

# Subtraction of Binomials Solved Examples

## Example 1

**Subtract:**  $(29p - 5) - (20p - 9)$

Given binomials are:

First Binomial =  $(29p - 5)$

Second Binomial =  $(20p - 9)$

Form subtraction expression:

$$(29p - 5) - (20p - 9)$$

Open brackets and change signs of second binomial:

$$29p - 5 - 20p + 9$$

Arrange like terms together:

$$29p - 20p - 5 + 9$$

Subtract like terms and simplify:

$$9p + 4$$

**Hence,**  $(29p - 5) - (20p - 9) = 9p + 4$

## Example 2

**Subtract:**  $(9y + 9) - (26x - 5)$

Given binomials are:

First Binomial =  $(9y + 9)$

Second Binomial =  $(26x - 5)$

Form subtraction expression:

$$(9y + 9) - (26x - 5)$$

Open brackets and change signs of second binomial:

$$9y + 9 - 26x + 5$$

Arrange like terms together:

$$9y - 26x + 9 + 5$$

Subtract like terms and simplify:

$$9y - 26x + 14$$

**Hence,**  $(9y + 9) - (26x - 5) = 9y - 26x + 14$

### Example 3

**Subtract:**  $(10m + 4) - (8m - 10)$

Given binomials are:

First Binomial =  $(10m + 4)$

Second Binomial =  $(8m - 10)$

Form subtraction expression:

$$(10m + 4) - (8m - 10)$$

Open brackets and change signs of second binomial:

$$10m + 4 - 8m + 10$$

Arrange like terms together:

$$10m - 8m + 4 + 10$$

Subtract like terms and simplify:

$$2m + 14$$

**Hence,**  $(10m + 4) - (8m - 10) = 2m + 14$

### Example 4

**Subtract:**  $(8y - 10) - (30x + 9)$

Given binomials are:

$$\text{First Binomial} = (8y - 10)$$

$$\text{Second Binomial} = (30x + 9)$$

Form subtraction expression:

$$(8y - 10) - (30x + 9)$$

Open brackets and change signs of second binomial:

$$8y - 10 - 30x - 9$$

Arrange like terms together:

$$8y - 30x - 10 - 9$$

Subtract like terms and simplify:

$$8y - 30x - 19$$

$$\text{Hence, } (8y - 10) - (30x + 9) = 8y - 30x - 19$$

## Example 5

**Subtract:**  $(10x + 4) - (15x - 14)$

Given binomials are:

$$\text{First Binomial} = (10x + 4)$$

$$\text{Second Binomial} = (15x - 14)$$

Form subtraction expression:

$$(10x + 4) - (15x - 14)$$

Open brackets and change signs of second binomial:

$$10x + 4 - 15x + 14$$

Arrange like terms together:

$$10x - 15x + 4 + 14$$

Subtract like terms and simplify:

$$-5x + 18$$

**Hence,**  $(10x + 4) - (15x - 14) = -5x + 18$

## Example 6

**Subtract:**  $(14a - 2) - (19m + 14)$

Given binomials are:

First Binomial =  $(14a - 2)$

Second Binomial =  $(19m + 14)$

Form subtraction expression:

$$(14a - 2) - (19m + 14)$$

Open brackets and change signs of second binomial:

$$14a - 2 - 19m - 14$$

Arrange like terms together:

$$14a - 19m - 2 - 14$$

Subtract like terms and simplify:

$$14a - 19m - 16$$

**Hence,**  $(14a - 2) - (19m + 14) = 14a - 19m - 16$

## Example 7

**Subtract:**  $(11y + 14) - (11a - 2)$

Given binomials are:

First Binomial =  $(11y + 14)$

Second Binomial =  $(11a - 2)$

Form subtraction expression:

$$(11y + 14) - (11a - 2)$$

Open brackets and change signs of second binomial:

$$11y + 14 - 11a + 2$$

Arrange like terms together:

$$11y - 11a + 14 + 2$$

Subtract like terms and simplify:

$$11y - 11a + 16$$

**Hence,**  $(11y + 14) - (11a - 2) = 11y - 11a + 16$

## Example 8

**Subtract:**  $(24x - 13) - (15b - 14)$

Given binomials are:

First Binomial =  $(24x - 13)$

Second Binomial =  $(15b - 14)$

Form subtraction expression:

$$(24x - 13) - (15b - 14)$$

Open brackets and change signs of second binomial:

$$24x - 13 - 15b + 14$$

Arrange like terms together:

$$24x - 15b - 13 + 14$$

Subtract like terms and simplify:

$$24x - 15b + 1$$

**Hence,**  $(24x - 13) - (15b - 14) = 24x - 15b + 1$

## Example 9

**Subtract:**  $(17m + 13) - (26m - 7)$

Given binomials are:

First Binomial =  $(17m + 13)$

Second Binomial =  $(26m - 7)$

Form subtraction expression:

$$(17m + 13) - (26m - 7)$$

Open brackets and change signs of second binomial:

$$17m + 13 - 26m + 7$$

Arrange like terms together:

$$17m - 26m + 13 + 7$$

Subtract like terms and simplify:

$$-9m + 20$$

**Hence,**  $(17m + 13) - (26m - 7) = -9m + 20$

## Example 10

**Subtract:**  $(18p + 12) - (18p - 5)$

Given binomials are:

First Binomial =  $(18p + 12)$

Second Binomial =  $(18p - 5)$

Form subtraction expression:

$$(18p + 12) - (18p - 5)$$

Open brackets and change signs of second binomial:

$$18p + 12 - 18p + 5$$

Arrange like terms together:

$$18p - 18p + 12 + 5$$

Subtract like terms and simplify:

$$0p + 17$$

**Hence,**  $(18p + 12) - (18p - 5) = 0p + 17$

## Example 11

**Subtract:**  $(11b + 4) - (22b - 2)$

Given binomials are:

First Binomial =  $(11b + 4)$

Second Binomial =  $(22b - 2)$

Form subtraction expression:

$$(11b + 4) - (22b - 2)$$

Open brackets and change signs of second binomial:

$$11b + 4 - 22b + 2$$

Arrange like terms together:

$$11b - 22b + 4 + 2$$

Subtract like terms and simplify:

$$-11b + 6$$

**Hence,**  $(11b + 4) - (22b - 2) = -11b + 6$

## Example 12

**Subtract:**  $(19x - 10) - (8m + 4)$

Given binomials are:

First Binomial =  $(19x - 10)$

Second Binomial =  $(8m + 4)$

Form subtraction expression:

$$(19x - 10) - (8m + 4)$$

Open brackets and change signs of second binomial:

$$19x - 10 - 8m - 4$$

Arrange like terms together:

$$19x - 8m - 10 - 4$$

Subtract like terms and simplify:

$$19x - 8m - 14$$

**Hence,**  $(19x - 10) - (8m + 4) = 19x - 8m - 14$

## Example 13

**Subtract:**  $(7a - 3) - (20a + 7)$

Given binomials are:

First Binomial =  $(7a - 3)$

Second Binomial =  $(20a + 7)$

Form subtraction expression:

$$(7a - 3) - (20a + 7)$$

Open brackets and change signs of second binomial:

$$7a - 3 - 20a - 7$$

Arrange like terms together:

$$7a - 20a - 3 - 7$$

Subtract like terms and simplify:

$$-13a - 10$$

**Hence,**  $(7a - 3) - (20a + 7) = -13a - 10$

## Example 14

**Subtract:**  $(20y - 13) - (18a - 9)$

Given binomials are:

First Binomial =  $(20y - 13)$

Second Binomial =  $(18a - 9)$

Form subtraction expression:

$$(20y - 13) - (18a - 9)$$

Open brackets and change signs of second binomial:

$$20y - 13 - 18a + 9$$

Arrange like terms together:

$$20y - 18a - 13 + 9$$

Subtract like terms and simplify:

$$20y - 18a - 4$$

**Hence,**  $(20y - 13) - (18a - 9) = 20y - 18a - 4$

## Example 15

**Subtract:**  $(19y - 4) - (10a - 7)$

Given binomials are:

First Binomial =  $(19y - 4)$

Second Binomial =  $(10a - 7)$

Form subtraction expression:

$$(19y - 4) - (10a - 7)$$

Open brackets and change signs of second binomial:

$$19y - 4 - 10a + 7$$

Arrange like terms together:

$$19y - 10a - 4 + 7$$

Subtract like terms and simplify:

$$19y - 10a + 3$$

**Hence,**  $(19y - 4) - (10a - 7) = 19y - 10a + 3$

## Example 16

**Subtract:**  $(7x - 5) - (16x - 7)$

Given binomials are:

$$\text{First Binomial} = (7x - 5)$$

$$\text{Second Binomial} = (16x - 7)$$

Form subtraction expression:

$$(7x - 5) - (16x - 7)$$

Open brackets and change signs of second binomial:

$$7x - 5 - 16x + 7$$

Arrange like terms together:

$$7x - 16x - 5 + 7$$

Subtract like terms and simplify:

$$-9x + 2$$

**Hence,**  $(7x - 5) - (16x - 7) = -9x + 2$

## Example 17

**Subtract:**  $(18a - 5) - (7a + 5)$

Given binomials are:

First Binomial =  $(18a - 5)$

Second Binomial =  $(7a + 5)$

Form subtraction expression:

$$(18a - 5) - (7a + 5)$$

Open brackets and change signs of second binomial:

$$18a - 5 - 7a - 5$$

Arrange like terms together:

$$18a - 7a - 5 - 5$$

Subtract like terms and simplify:

$$11a - 10$$

**Hence,**  $(18a - 5) - (7a + 5) = 11a - 10$

## Example 18

**Subtract:**  $(29p - 13) - (9p + 14)$

Given binomials are:

First Binomial =  $(29p - 13)$

Second Binomial =  $(9p + 14)$

Form subtraction expression:

$$(29p - 13) - (9p + 14)$$

Open brackets and change signs of second binomial:

$$29p - 13 - 9p - 14$$

Arrange like terms together:

$$29p - 9p - 13 - 14$$

Subtract like terms and simplify:

$$20p - 27$$

**Hence,**  $(29p - 13) - (9p + 14) = 20p - 27$

## Example 19

**Subtract:**  $(23b + 14) - (13b + 6)$

Given binomials are:

First Binomial =  $(23b + 14)$

Second Binomial =  $(13b + 6)$

Form subtraction expression:

$$(23b + 14) - (13b + 6)$$

Open brackets and change signs of second binomial:

$$23b + 14 - 13b - 6$$

Arrange like terms together:

$$23b - 13b + 14 - 6$$

Subtract like terms and simplify:

$$10b + 8$$

**Hence,**  $(23b + 14) - (13b + 6) = 10b + 8$

## Example 20

**Subtract:**  $(22x + 11) - (15x + 6)$

Given binomials are:

First Binomial =  $(22x + 11)$

Second Binomial =  $(15x + 6)$

Form subtraction expression:

$$(22x + 11) - (15x + 6)$$

Open brackets and change signs of second binomial:

$$22x + 11 - 15x - 6$$

Arrange like terms together:

$$22x - 15x + 11 - 6$$

Subtract like terms and simplify:

$$7x + 5$$

**Hence,**  $(22x + 11) - (15x + 6) = 7x + 5$