

Subtraction of Binomials Solved Examples

Example 1

Subtract: $(24m + 4) - (28m - 2)$

Given binomials are:

First Binomial = $(24m + 4)$

Second Binomial = $(28m - 2)$

Form subtraction expression:

$$(24m + 4) - (28m - 2)$$

Open brackets and change signs of second binomial:

$$24m + 4 - 28m + 2$$

Arrange like terms together:

$$24m - 28m + 4 + 2$$

Subtract like terms and simplify:

$$-4m + 6$$

Hence, $(24m + 4) - (28m - 2) = -4m + 6$

Example 2

Subtract: $(18y - 8) - (20b - 9)$

Given binomials are:

First Binomial = $(18y - 8)$

Second Binomial = $(20b - 9)$

Form subtraction expression:

$$(18y - 8) - (20b - 9)$$

Open brackets and change signs of second binomial:

$$18y - 8 - 20b + 9$$

Arrange like terms together:

$$18y - 20b - 8 + 9$$

Subtract like terms and simplify:

$$18y - 20b + 1$$

Hence, $(18y - 8) - (20b - 9) = 18y - 20b + 1$

Example 3

Subtract: $(19y - 10) - (23b + 14)$

Given binomials are:

First Binomial = $(19y - 10)$

Second Binomial = $(23b + 14)$

Form subtraction expression:

$$(19y - 10) - (23b + 14)$$

Open brackets and change signs of second binomial:

$$19y - 10 - 23b - 14$$

Arrange like terms together:

$$19y - 23b - 10 - 14$$

Subtract like terms and simplify:

$$19y - 23b - 24$$

Hence, $(19y - 10) - (23b + 14) = 19y - 23b - 24$

Example 4

Subtract: $(24p - 6) - (10y - 3)$

Given binomials are:

First Binomial = $(24p - 6)$

Second Binomial = $(10y - 3)$

Form subtraction expression:

$$(24p - 6) - (10y - 3)$$

Open brackets and change signs of second binomial:

$$24p - 6 - 10y + 3$$

Arrange like terms together:

$$24p - 10y - 6 + 3$$

Subtract like terms and simplify:

$$24p - 10y - 3$$

Hence, $(24p - 6) - (10y - 3) = 24p - 10y - 3$

Example 5

Subtract: $(21x + 15) - (21x + 3)$

Given binomials are:

First Binomial = $(21x + 15)$

Second Binomial = $(21x + 3)$

Form subtraction expression:

$$(21x + 15) - (21x + 3)$$

Open brackets and change signs of second binomial:

$$21x + 15 - 21x - 3$$

Arrange like terms together:

$$21x - 21x + 15 - 3$$

Subtract like terms and simplify:

$$0x + 12$$

Hence, $(21x + 15) - (21x + 3) = 0x + 12$

Example 6

Subtract: $(23a - 13) - (12p + 3)$

Given binomials are:

First Binomial = $(23a - 13)$

Second Binomial = $(12p + 3)$

Form subtraction expression:

$$(23a - 13) - (12p + 3)$$

Open brackets and change signs of second binomial:

$$23a - 13 - 12p - 3$$

Arrange like terms together:

$$23a - 12p - 13 - 3$$

Subtract like terms and simplify:

$$23a - 12p - 16$$

Hence, $(23a - 13) - (12p + 3) = 23a - 12p - 16$

Example 7

Subtract: $(21p - 14) - (19p + 3)$

Given binomials are:

First Binomial = $(21p - 14)$

Second Binomial = $(19p + 3)$

Form subtraction expression:

$$(21p - 14) - (19p + 3)$$

Open brackets and change signs of second binomial:

$$21p - 14 - 19p - 3$$

Arrange like terms together:

$$21p - 19p - 14 - 3$$

Subtract like terms and simplify:

$$2p - 17$$

Hence, $(21p - 14) - (19p + 3) = 2p - 17$

Example 8

Subtract: $(23x + 8) - (16b + 10)$

Given binomials are:

First Binomial = $(23x + 8)$

Second Binomial = $(16b + 10)$

Form subtraction expression:

$$(23x + 8) - (16b + 10)$$

Open brackets and change signs of second binomial:

$$23x + 8 - 16b - 10$$

Arrange like terms together:

$$23x - 16b + 8 - 10$$

Subtract like terms and simplify:

$$23x - 16b - 2$$

Hence, $(23x + 8) - (16b + 10) = 23x - 16b - 2$

Example 9

Subtract: $(7x - 4) - (17x + 15)$

Given binomials are:

First Binomial = $(7x - 4)$

Second Binomial = $(17x + 15)$

Form subtraction expression:

$$(7x - 4) - (17x + 15)$$

Open brackets and change signs of second binomial:

$$7x - 4 - 17x - 15$$

Arrange like terms together:

$$7x - 17x - 4 - 15$$

Subtract like terms and simplify:

$$-10x - 19$$

Hence, $(7x - 4) - (17x + 15) = -10x - 19$

Example 10

Subtract: $(20x - 3) - (13x - 1)$

Given binomials are:

First Binomial = $(20x - 3)$

Second Binomial = $(13x - 1)$

Form subtraction expression:

$$(20x - 3) - (13x - 1)$$

Open brackets and change signs of second binomial:

$$20x - 3 - 13x + 1$$

Arrange like terms together:

$$20x - 13x - 3 + 1$$

Subtract like terms and simplify:

$$7x - 2$$

Hence, $(20x - 3) - (13x - 1) = 7x - 2$

Example 11

Subtract: $(16y + 2) - (16x - 10)$

Given binomials are:

First Binomial = $(16y + 2)$

Second Binomial = $(16x - 10)$

Form subtraction expression:

$$(16y + 2) - (16x - 10)$$

Open brackets and change signs of second binomial:

$$16y + 2 - 16x + 10$$

Arrange like terms together:

$$16y - 16x + 2 + 10$$

Subtract like terms and simplify:

$$16y - 16x + 12$$

Hence, $(16y + 2) - (16x - 10) = 16y - 16x + 12$

Example 12

Subtract: $(17y - 13) - (18y - 3)$

Given binomials are:

First Binomial = $(17y - 13)$

Second Binomial = $(18y - 3)$

Form subtraction expression:

$$(17y - 13) - (18y - 3)$$

Open brackets and change signs of second binomial:

$$17y - 13 - 18y + 3$$

Arrange like terms together:

$$17y - 18y - 13 + 3$$

Subtract like terms and simplify:

$$-1y - 10$$

Hence, $(17y - 13) - (18y - 3) = -1y - 10$

Example 13

Subtract: $(22m - 15) - (22m - 8)$

Given binomials are:

First Binomial = $(22m - 15)$

Second Binomial = $(22m - 8)$

Form subtraction expression:

$$(22m - 15) - (22m - 8)$$

Open brackets and change signs of second binomial:

$$22m - 15 - 22m + 8$$

Arrange like terms together:

$$22m - 22m - 15 + 8$$

Subtract like terms and simplify:

$$0m - 7$$

Hence, $(22m - 15) - (22m - 8) = 0m - 7$

Example 14

Subtract: $(16y + 9) - (28m - 8)$

Given binomials are:

First Binomial = $(16y + 9)$

Second Binomial = $(28m - 8)$

Form subtraction expression:

$$(16y + 9) - (28m - 8)$$

Open brackets and change signs of second binomial:

$$16y + 9 - 28m + 8$$

Arrange like terms together:

$$16y - 28m + 9 + 8$$

Subtract like terms and simplify:

$$16y - 28m + 17$$

Hence, $(16y + 9) - (28m - 8) = 16y - 28m + 17$

Example 15

Subtract: $(19a + 6) - (5p + 3)$

Given binomials are:

First Binomial = $(19a + 6)$

Second Binomial = $(5p + 3)$

Form subtraction expression:

$$(19a + 6) - (5p + 3)$$

Open brackets and change signs of second binomial:

$$19a + 6 - 5p - 3$$

Arrange like terms together:

$$19a - 5p + 6 - 3$$

Subtract like terms and simplify:

$$19a - 5p + 3$$

Hence, $(19a + 6) - (5p + 3) = 19a - 5p + 3$

Example 16

Subtract: $(6m + 6) - (7x - 7)$

Given binomials are:

First Binomial = $(6m + 6)$

Second Binomial = $(7x - 7)$

Form subtraction expression:

$$(6m + 6) - (7x - 7)$$

Open brackets and change signs of second binomial:

$$6m + 6 - 7x + 7$$

Arrange like terms together:

$$6m - 7x + 6 + 7$$

Subtract like terms and simplify:

$$6m - 7x + 13$$

Hence, $(6m + 6) - (7x - 7) = 6m - 7x + 13$

Example 17

Subtract: $(14m - 13) - (11y + 10)$

Given binomials are:

First Binomial = $(14m - 13)$

Second Binomial = $(11y + 10)$

Form subtraction expression:

$$(14m - 13) - (11y + 10)$$

Open brackets and change signs of second binomial:

$$14m - 13 - 11y - 10$$

Arrange like terms together:

$$14m - 11y - 13 - 10$$

Subtract like terms and simplify:

$$14m - 11y - 23$$

Hence, $(14m - 13) - (11y + 10) = 14m - 11y - 23$

Example 18

Subtract: $(13b - 9) - (26m + 15)$

Given binomials are:

First Binomial = $(13b - 9)$

Second Binomial = $(26m + 15)$

Form subtraction expression:

$$(13b - 9) - (26m + 15)$$

Open brackets and change signs of second binomial:

$$13b - 9 - 26m - 15$$

Arrange like terms together:

$$13b - 26m - 9 - 15$$

Subtract like terms and simplify:

$$13b - 26m - 24$$

Hence, $(13b - 9) - (26m + 15) = 13b - 26m - 24$

Example 19

Subtract: $(26y - 3) - (27y + 14)$

Given binomials are:

First Binomial = $(26y - 3)$

Second Binomial = $(27y + 14)$

Form subtraction expression:

$$(26y - 3) - (27y + 14)$$

Open brackets and change signs of second binomial:

$$26y - 3 - 27y - 14$$

Arrange like terms together:

$$26y - 27y - 3 - 14$$

Subtract like terms and simplify:

$$-1y - 17$$

Hence, $(26y - 3) - (27y + 14) = -1y - 17$

Example 20

Subtract: $(10y - 7) - (29x + 6)$

Given binomials are:

First Binomial = $(10y - 7)$

Second Binomial = $(29x + 6)$

Form subtraction expression:

$$(10y - 7) - (29x + 6)$$

Open brackets and change signs of second binomial:

$$10y - 7 - 29x - 6$$

Arrange like terms together:

$$10y - 29x - 7 - 6$$

Subtract like terms and simplify:

$$10y - 29x - 13$$

Hence, $(10y - 7) - (29x + 6) = 10y - 29x - 13$