

Subtraction of Binomials Solved Examples

Example 1

Subtract: $(10p - 1) - (10p - 7)$

Given binomials are:

First Binomial = $(10p - 1)$

Second Binomial = $(10p - 7)$

Form subtraction expression:

$$(10p - 1) - (10p - 7)$$

Open brackets and change signs of second binomial:

$$10p - 1 - 10p + 7$$

Arrange like terms together:

$$10p - 10p - 1 + 7$$

Subtract like terms and simplify:

$$0p + 6$$

Hence, $(10p - 1) - (10p - 7) = 0p + 6$

Example 2

Subtract: $(11b + 14) - (16x - 11)$

Given binomials are:

First Binomial = $(11b + 14)$

Second Binomial = $(16x - 11)$

Form subtraction expression:

$$(11b + 14) - (16x - 11)$$

Open brackets and change signs of second binomial:

$$11b + 14 - 16x + 11$$

Arrange like terms together:

$$11b - 16x + 14 + 11$$

Subtract like terms and simplify:

$$11b - 16x + 25$$

Hence, $(11b + 14) - (16x - 11) = 11b - 16x + 25$

Example 3

Subtract: $(19x + 10) - (9x - 13)$

Given binomials are:

First Binomial = $(19x + 10)$

Second Binomial = $(9x - 13)$

Form subtraction expression:

$$(19x + 10) - (9x - 13)$$

Open brackets and change signs of second binomial:

$$19x + 10 - 9x + 13$$

Arrange like terms together:

$$19x - 9x + 10 + 13$$

Subtract like terms and simplify:

$$10x + 23$$

Hence, $(19x + 10) - (9x - 13) = 10x + 23$

Example 4

Subtract: $(14a - 4) - (25a + 13)$

Given binomials are:

$$\text{First Binomial} = (14a - 4)$$

$$\text{Second Binomial} = (25a + 13)$$

Form subtraction expression:

$$(14a - 4) - (25a + 13)$$

Open brackets and change signs of second binomial:

$$14a - 4 - 25a - 13$$

Arrange like terms together:

$$14a - 25a - 4 - 13$$

Subtract like terms and simplify:

$$-11a - 17$$

Hence, $(14a - 4) - (25a + 13) = -11a - 17$

Example 5

Subtract: $(17b + 12) - (16m + 13)$

Given binomials are:

$$\text{First Binomial} = (17b + 12)$$

$$\text{Second Binomial} = (16m + 13)$$

Form subtraction expression:

$$(17b + 12) - (16m + 13)$$

Open brackets and change signs of second binomial:

$$17b + 12 - 16m - 13$$

Arrange like terms together:

$$17b - 16m + 12 - 13$$

Subtract like terms and simplify:

$$17b - 16m - 1$$

Hence, $(17b + 12) - (16m + 13) = 17b - 16m - 1$

Example 6

Subtract: $(12b + 6) - (9b + 12)$

Given binomials are:

First Binomial = $(12b + 6)$

Second Binomial = $(9b + 12)$

Form subtraction expression:

$$(12b + 6) - (9b + 12)$$

Open brackets and change signs of second binomial:

$$12b + 6 - 9b - 12$$

Arrange like terms together:

$$12b - 9b + 6 - 12$$

Subtract like terms and simplify:

$$3b - 6$$

Hence, $(12b + 6) - (9b + 12) = 3b - 6$

Example 7

Subtract: $(17a - 7) - (18p + 14)$

Given binomials are:

First Binomial = $(17a - 7)$

Second Binomial = $(18p + 14)$

Form subtraction expression:

$$(17a - 7) - (18p + 14)$$

Open brackets and change signs of second binomial:

$$17a - 7 - 18p - 14$$

Arrange like terms together:

$$17a - 18p - 7 - 14$$

Subtract like terms and simplify:

$$17a - 18p - 21$$

Hence, $(17a - 7) - (18p + 14) = 17a - 18p - 21$

Example 8

Subtract: $(5b - 3) - (6p + 12)$

Given binomials are:

First Binomial = $(5b - 3)$

Second Binomial = $(6p + 12)$

Form subtraction expression:

$$(5b - 3) - (6p + 12)$$

Open brackets and change signs of second binomial:

$$5b - 3 - 6p - 12$$

Arrange like terms together:

$$5b - 6p - 3 - 12$$

Subtract like terms and simplify:

$$5b - 6p - 15$$

Hence, $(5b - 3) - (6p + 12) = 5b - 6p - 15$

Example 9

Subtract: $(8m - 15) - (26y - 12)$

Given binomials are:

First Binomial = $(8m - 15)$

Second Binomial = $(26y - 12)$

Form subtraction expression:

$(8m - 15) - (26y - 12)$

Open brackets and change signs of second binomial:

$8m - 15 - 26y + 12$

Arrange like terms together:

$8m - 26y - 15 + 12$

Subtract like terms and simplify:

$8m - 26y - 3$

Hence, $(8m - 15) - (26y - 12) = 8m - 26y - 3$

Example 10

Subtract: $(16p - 9) - (25a - 4)$

Given binomials are:

First Binomial = $(16p - 9)$

Second Binomial = $(25a - 4)$

Form subtraction expression:

$(16p - 9) - (25a - 4)$

Open brackets and change signs of second binomial:

$16p - 9 - 25a + 4$

Arrange like terms together:

$$16p - 25a - 9 + 4$$

Subtract like terms and simplify:

$$16p - 25a - 5$$

Hence, $(16p - 9) - (25a - 4) = 16p - 25a - 5$

Example 11

Subtract: $(18m - 13) - (20m - 2)$

Given binomials are:

First Binomial = $(18m - 13)$

Second Binomial = $(20m - 2)$

Form subtraction expression:

$$(18m - 13) - (20m - 2)$$

Open brackets and change signs of second binomial:

$$18m - 13 - 20m + 2$$

Arrange like terms together:

$$18m - 20m - 13 + 2$$

Subtract like terms and simplify:

$$-2m - 11$$

Hence, $(18m - 13) - (20m - 2) = -2m - 11$

Example 12

Subtract: $(21y + 8) - (18y + 7)$

Given binomials are:

First Binomial = $(21y + 8)$

Second Binomial = $(18y + 7)$

Form subtraction expression:

$$(21y + 8) - (18y + 7)$$

Open brackets and change signs of second binomial:

$$21y + 8 - 18y - 7$$

Arrange like terms together:

$$21y - 18y + 8 - 7$$

Subtract like terms and simplify:

$$3y + 1$$

Hence, $(21y + 8) - (18y + 7) = 3y + 1$

Example 13

Subtract: $(26y - 8) - (28y + 7)$

Given binomials are:

First Binomial = $(26y - 8)$

Second Binomial = $(28y + 7)$

Form subtraction expression:

$$(26y - 8) - (28y + 7)$$

Open brackets and change signs of second binomial:

$$26y - 8 - 28y - 7$$

Arrange like terms together:

$$26y - 28y - 8 - 7$$

Subtract like terms and simplify:

$$-2y - 15$$

Hence, $(26y - 8) - (28y + 7) = -2y - 15$

Example 14

Subtract: $(19a - 8) - (15x + 1)$

Given binomials are:

First Binomial = $(19a - 8)$

Second Binomial = $(15x + 1)$

Form subtraction expression:

$$(19a - 8) - (15x + 1)$$

Open brackets and change signs of second binomial:

$$19a - 8 - 15x - 1$$

Arrange like terms together:

$$19a - 15x - 8 - 1$$

Subtract like terms and simplify:

$$19a - 15x - 9$$

Hence, $(19a - 8) - (15x + 1) = 19a - 15x - 9$

Example 15

Subtract: $(11x + 4) - (26x + 13)$

Given binomials are:

First Binomial = $(11x + 4)$

Second Binomial = $(26x + 13)$

Form subtraction expression:

$$(11x + 4) - (26x + 13)$$

Open brackets and change signs of second binomial:

$$11x + 4 - 26x - 13$$

Arrange like terms together:

$$11x - 26x + 4 - 13$$

Subtract like terms and simplify:

$$-15x - 9$$

Hence, $(11x + 4) - (26x + 13) = -15x - 9$

Example 16

Subtract: $(7a + 1) - (16x + 1)$

Given binomials are:

First Binomial = $(7a + 1)$

Second Binomial = $(16x + 1)$

Form subtraction expression:

$$(7a + 1) - (16x + 1)$$

Open brackets and change signs of second binomial:

$$7a + 1 - 16x - 1$$

Arrange like terms together:

$$7a - 16x + 1 - 1$$

Subtract like terms and simplify:

$$7a - 16x$$

Hence, $(7a + 1) - (16x + 1) = 7a - 16x$

Example 17

Subtract: $(9b + 7) - (11b - 10)$

Given binomials are:

First Binomial = $(9b + 7)$

Second Binomial = $(11b - 10)$

Form subtraction expression:

$$(9b + 7) - (11b - 10)$$

Open brackets and change signs of second binomial:

$$9b + 7 - 11b + 10$$

Arrange like terms together:

$$9b - 11b + 7 + 10$$

Subtract like terms and simplify:

$$-2b + 17$$

Hence, $(9b + 7) - (11b - 10) = -2b + 17$

Example 18

Subtract: $(6p + 7) - (6x + 15)$

Given binomials are:

First Binomial = $(6p + 7)$

Second Binomial = $(6x + 15)$

Form subtraction expression:

$$(6p + 7) - (6x + 15)$$

Open brackets and change signs of second binomial:

$$6p + 7 - 6x - 15$$

Arrange like terms together:

$$6p - 6x + 7 - 15$$

Subtract like terms and simplify:

$$6p - 6x - 8$$

Hence, $(6p + 7) - (6x + 15) = 6p - 6x - 8$

Example 19

Subtract: $(24m - 15) - (8y - 5)$

Given binomials are:

First Binomial = $(24m - 15)$

Second Binomial = $(8y - 5)$

Form subtraction expression:

$$(24m - 15) - (8y - 5)$$

Open brackets and change signs of second binomial:

$$24m - 15 - 8y + 5$$

Arrange like terms together:

$$24m - 8y - 15 + 5$$

Subtract like terms and simplify:

$$24m - 8y - 10$$

Hence, $(24m - 15) - (8y - 5) = 24m - 8y - 10$

Example 20

Subtract: $(14m - 8) - (20b - 6)$

Given binomials are:

First Binomial = $(14m - 8)$

Second Binomial = $(20b - 6)$

Form subtraction expression:

$$(14m - 8) - (20b - 6)$$

Open brackets and change signs of second binomial:

$$14m - 8 - 20b + 6$$

Arrange like terms together:

$$14m - 20b - 8 + 6$$

Subtract like terms and simplify:

$$14m - 20b - 2$$

Hence, $(14m - 8) - (20b - 6) = 14m - 20b - 2$