

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:

First Binomial = $(8y - 10)$

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:

$$8y - 30x - 19$$

Hence, $(8y - 10) - (30x + 9) = 8y - 30x - 19$

Example 5

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

Given binomials are:

First Binomial = $(10x + 4)$

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:

First Binomial = $(7x - 5)$

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