

Subtraction of Binomials Solved Examples

Example 1

Subtract: $(30b - 13) - (7a + 1)$

Given binomials are:

First Binomial = $(30b - 13)$

Second Binomial = $(7a + 1)$

Form subtraction expression:

$$(30b - 13) - (7a + 1)$$

Open brackets and change signs of second binomial:

$$30b - 13 - 7a - 1$$

Arrange like terms together:

$$30b - 7a - 13 - 1$$

Subtract like terms and simplify:

$$30b - 7a - 14$$

Hence, $(30b - 13) - (7a + 1) = 30b - 7a - 14$

Example 2

Subtract: $(7p + 6) - (9p - 2)$

Given binomials are:

First Binomial = $(7p + 6)$

Second Binomial = $(9p - 2)$

Form subtraction expression:

$$(7p + 6) - (9p - 2)$$

Open brackets and change signs of second binomial:

$$7p + 6 - 9p + 2$$

Arrange like terms together:

$$7p - 9p + 6 + 2$$

Subtract like terms and simplify:

$$-2p + 8$$

Hence, $(7p + 6) - (9p - 2) = -2p + 8$

Example 3

Subtract: $(28a - 9) - (15a - 4)$

Given binomials are:

First Binomial = $(28a - 9)$

Second Binomial = $(15a - 4)$

Form subtraction expression:

$$(28a - 9) - (15a - 4)$$

Open brackets and change signs of second binomial:

$$28a - 9 - 15a + 4$$

Arrange like terms together:

$$28a - 15a - 9 + 4$$

Subtract like terms and simplify:

$$13a - 5$$

Hence, $(28a - 9) - (15a - 4) = 13a - 5$

Example 4

Subtract: $(15b - 14) - (19b - 1)$

Given binomials are:

First Binomial = $(15b - 14)$

Second Binomial = $(19b - 1)$

Form subtraction expression:

$$(15b - 14) - (19b - 1)$$

Open brackets and change signs of second binomial:

$$15b - 14 - 19b + 1$$

Arrange like terms together:

$$15b - 19b - 14 + 1$$

Subtract like terms and simplify:

$$-4b - 13$$

Hence, $(15b - 14) - (19b - 1) = -4b - 13$

Example 5

Subtract: $(29b - 6) - (13b - 1)$

Given binomials are:

First Binomial = $(29b - 6)$

Second Binomial = $(13b - 1)$

Form subtraction expression:

$$(29b - 6) - (13b - 1)$$

Open brackets and change signs of second binomial:

$$29b - 6 - 13b + 1$$

Arrange like terms together:

$$29b - 13b - 6 + 1$$

Subtract like terms and simplify:

$$16b - 5$$

Hence, $(29b - 6) - (13b - 1) = 16b - 5$

Example 6

Subtract: $(17b + 14) - (15b - 15)$

Given binomials are:

First Binomial = $(17b + 14)$

Second Binomial = $(15b - 15)$

Form subtraction expression:

$$(17b + 14) - (15b - 15)$$

Open brackets and change signs of second binomial:

$$17b + 14 - 15b + 15$$

Arrange like terms together:

$$17b - 15b + 14 + 15$$

Subtract like terms and simplify:

$$2b + 29$$

Hence, $(17b + 14) - (15b - 15) = 2b + 29$

Example 7

Subtract: $(21p - 6) - (12b + 1)$

Given binomials are:

First Binomial = $(21p - 6)$

Second Binomial = $(12b + 1)$

Form subtraction expression:

$$(21p - 6) - (12b + 1)$$

Open brackets and change signs of second binomial:

$$21p - 6 - 12b - 1$$

Arrange like terms together:

$$21p - 12b - 6 - 1$$

Subtract like terms and simplify:

$$21p - 12b - 7$$

Hence, $(21p - 6) - (12b + 1) = 21p - 12b - 7$

Example 8

Subtract: $(30x + 14) - (23y + 9)$

Given binomials are:

First Binomial = $(30x + 14)$

Second Binomial = $(23y + 9)$

Form subtraction expression:

$$(30x + 14) - (23y + 9)$$

Open brackets and change signs of second binomial:

$$30x + 14 - 23y - 9$$

Arrange like terms together:

$$30x - 23y + 14 - 9$$

Subtract like terms and simplify:

$$30x - 23y + 5$$

Hence, $(30x + 14) - (23y + 9) = 30x - 23y + 5$

Example 9

Subtract: $(26b + 10) - (22x + 10)$

Given binomials are:

First Binomial = $(26b + 10)$

Second Binomial = $(22x + 10)$

Form subtraction expression:

$$(26b + 10) - (22x + 10)$$

Open brackets and change signs of second binomial:

$$26b + 10 - 22x - 10$$

Arrange like terms together:

$$26b - 22x + 10 - 10$$

Subtract like terms and simplify:

$$26b - 22x$$

Hence, $(26b + 10) - (22x + 10) = 26b - 22x$

Example 10

Subtract: $(23m + 6) - (6m + 5)$

Given binomials are:

First Binomial = $(23m + 6)$

Second Binomial = $(6m + 5)$

Form subtraction expression:

$$(23m + 6) - (6m + 5)$$

Open brackets and change signs of second binomial:

$$23m + 6 - 6m - 5$$

Arrange like terms together:

$$23m - 6m + 6 - 5$$

Subtract like terms and simplify:

$$17m + 1$$

Hence, $(23m + 6) - (6m + 5) = 17m + 1$

Example 11

Subtract: $(19m + 13) - (10p + 2)$

Given binomials are:

First Binomial = $(19m + 13)$

Second Binomial = $(10p + 2)$

Form subtraction expression:

$$(19m + 13) - (10p + 2)$$

Open brackets and change signs of second binomial:

$$19m + 13 - 10p - 2$$

Arrange like terms together:

$$19m - 10p + 13 - 2$$

Subtract like terms and simplify:

$$19m - 10p + 11$$

Hence, $(19m + 13) - (10p + 2) = 19m - 10p + 11$

Example 12

Subtract: $(8x - 3) - (19y - 3)$

Given binomials are:

First Binomial = $(8x - 3)$

Second Binomial = $(19y - 3)$

Form subtraction expression:

$$(8x - 3) - (19y - 3)$$

Open brackets and change signs of second binomial:

$$8x - 3 - 19y + 3$$

Arrange like terms together:

$$8x - 19y - 3 + 3$$

Subtract like terms and simplify:

$$8x - 19y$$

Hence, $(8x - 3) - (19y - 3) = 8x - 19y$

Example 13

Subtract: $(30p + 8) - (14x + 1)$

Given binomials are:

First Binomial = $(30p + 8)$

Second Binomial = $(14x + 1)$

Form subtraction expression:

$$(30p + 8) - (14x + 1)$$

Open brackets and change signs of second binomial:

$$30p + 8 - 14x - 1$$

Arrange like terms together:

$$30p - 14x + 8 - 1$$

Subtract like terms and simplify:

$$30p - 14x + 7$$

Hence, $(30p + 8) - (14x + 1) = 30p - 14x + 7$

Example 14

Subtract: $(12y + 5) - (27y - 2)$

Given binomials are:

First Binomial = $(12y + 5)$

Second Binomial = $(27y - 2)$

Form subtraction expression:

$$(12y + 5) - (27y - 2)$$

Open brackets and change signs of second binomial:

$$12y + 5 - 27y + 2$$

Arrange like terms together:

$$12y - 27y + 5 + 2$$

Subtract like terms and simplify:

$$-15y + 7$$

Hence, $(12y + 5) - (27y - 2) = -15y + 7$

Example 15

Subtract: $(22b - 8) - (14x - 12)$

Given binomials are:

First Binomial = $(22b - 8)$

Second Binomial = $(14x - 12)$

Form subtraction expression:

$$(22b - 8) - (14x - 12)$$

Open brackets and change signs of second binomial:

$$22b - 8 - 14x + 12$$

Arrange like terms together:

$$22b - 14x - 8 + 12$$

Subtract like terms and simplify:

$$22b - 14x + 4$$

Hence, $(22b - 8) - (14x - 12) = 22b - 14x + 4$

Example 16

Subtract: $(20y + 2) - (30b + 11)$

Given binomials are:

First Binomial = $(20y + 2)$

Second Binomial = $(30b + 11)$

Form subtraction expression:

$$(20y + 2) - (30b + 11)$$

Open brackets and change signs of second binomial:

$$20y + 2 - 30b - 11$$

Arrange like terms together:

$$20y - 30b + 2 - 11$$

Subtract like terms and simplify:

$$20y - 30b - 9$$

Hence, $(20y + 2) - (30b + 11) = 20y - 30b - 9$

Example 17

Subtract: $(15m + 11) - (10m + 15)$

Given binomials are:

First Binomial = $(15m + 11)$

Second Binomial = $(10m + 15)$

Form subtraction expression:

$$(15m + 11) - (10m + 15)$$

Open brackets and change signs of second binomial:

$$15m + 11 - 10m - 15$$

Arrange like terms together:

$$15m - 10m + 11 - 15$$

Subtract like terms and simplify:

$$5m - 4$$

Hence, $(15m + 11) - (10m + 15) = 5m - 4$

Example 18

Subtract: $(11a + 9) - (26b + 9)$

Given binomials are:

First Binomial = $(11a + 9)$

Second Binomial = $(26b + 9)$

Form subtraction expression:

$$(11a + 9) - (26b + 9)$$

Open brackets and change signs of second binomial:

$$11a + 9 - 26b - 9$$

Arrange like terms together:

$$11a - 26b + 9 - 9$$

Subtract like terms and simplify:

$$11a - 26b$$

Hence, $(11a + 9) - (26b + 9) = 11a - 26b$

Example 19

Subtract: $(14x + 12) - (24x - 7)$

Given binomials are:

First Binomial = $(14x + 12)$

Second Binomial = $(24x - 7)$

Form subtraction expression:

$$(14x + 12) - (24x - 7)$$

Open brackets and change signs of second binomial:

$$14x + 12 - 24x + 7$$

Arrange like terms together:

$$14x - 24x + 12 + 7$$

Subtract like terms and simplify:

$$-10x + 19$$

Hence, $(14x + 12) - (24x - 7) = -10x + 19$

Example 20

Subtract: $(29m + 13) - (13m - 8)$

Given binomials are:

First Binomial = $(29m + 13)$

Second Binomial = $(13m - 8)$

Form subtraction expression:

$$(29m + 13) - (13m - 8)$$

Open brackets and change signs of second binomial:

$$29m + 13 - 13m + 8$$

Arrange like terms together:

$$29m - 13m + 13 + 8$$

Subtract like terms and simplify:

$$16m + 21$$

Hence, $(29m + 13) - (13m - 8) = 16m + 21$