

Subtraction of Binomials Solved Examples

Example 1

Subtract: $(25a + 9) - (14m - 9)$

Given binomials are:

First Binomial = $(25a + 9)$

Second Binomial = $(14m - 9)$

Form subtraction expression:

$$(25a + 9) - (14m - 9)$$

Open brackets and change signs of second binomial:

$$25a + 9 - 14m + 9$$

Arrange like terms together:

$$25a - 14m + 9 + 9$$

Subtract like terms and simplify:

$$25a - 14m + 18$$

Hence, $(25a + 9) - (14m - 9) = 25a - 14m + 18$

Example 2

Subtract: $(27y - 9) - (19y - 1)$

Given binomials are:

First Binomial = $(27y - 9)$

Second Binomial = $(19y - 1)$

Form subtraction expression:

$$(27y - 9) - (19y - 1)$$

Open brackets and change signs of second binomial:

$$27y - 9 - 19y + 1$$

Arrange like terms together:

$$27y - 19y - 9 + 1$$

Subtract like terms and simplify:

$$8y - 8$$

Hence, $(27y - 9) - (19y - 1) = 8y - 8$

Example 3

Subtract: $(28p + 9) - (26p - 9)$

Given binomials are:

First Binomial = $(28p + 9)$

Second Binomial = $(26p - 9)$

Form subtraction expression:

$$(28p + 9) - (26p - 9)$$

Open brackets and change signs of second binomial:

$$28p + 9 - 26p + 9$$

Arrange like terms together:

$$28p - 26p + 9 + 9$$

Subtract like terms and simplify:

$$2p + 18$$

Hence, $(28p + 9) - (26p - 9) = 2p + 18$

Example 4

Subtract: $(25y - 1) - (7p + 2)$

Given binomials are:

$$\text{First Binomial} = (25y - 1)$$

$$\text{Second Binomial} = (7p + 2)$$

Form subtraction expression:

$$(25y - 1) - (7p + 2)$$

Open brackets and change signs of second binomial:

$$25y - 1 - 7p - 2$$

Arrange like terms together:

$$25y - 7p - 1 - 2$$

Subtract like terms and simplify:

$$25y - 7p - 3$$

Hence, $(25y - 1) - (7p + 2) = 25y - 7p - 3$

Example 5

Subtract: $(14y - 6) - (8y - 13)$

Given binomials are:

$$\text{First Binomial} = (14y - 6)$$

$$\text{Second Binomial} = (8y - 13)$$

Form subtraction expression:

$$(14y - 6) - (8y - 13)$$

Open brackets and change signs of second binomial:

$$14y - 6 - 8y + 13$$

Arrange like terms together:

$$14y - 8y - 6 + 13$$

Subtract like terms and simplify:

$$6y + 7$$

Hence, $(14y - 6) - (8y - 13) = 6y + 7$

Example 6

Subtract: $(23y - 10) - (19a - 6)$

Given binomials are:

First Binomial = $(23y - 10)$

Second Binomial = $(19a - 6)$

Form subtraction expression:

$$(23y - 10) - (19a - 6)$$

Open brackets and change signs of second binomial:

$$23y - 10 - 19a + 6$$

Arrange like terms together:

$$23y - 19a - 10 + 6$$

Subtract like terms and simplify:

$$23y - 19a - 4$$

Hence, $(23y - 10) - (19a - 6) = 23y - 19a - 4$

Example 7

Subtract: $(6a + 8) - (8p + 14)$

Given binomials are:

First Binomial = $(6a + 8)$

Second Binomial = $(8p + 14)$

Form subtraction expression:

$$(6a + 8) - (8p + 14)$$

Open brackets and change signs of second binomial:

$$6a + 8 - 8p - 14$$

Arrange like terms together:

$$6a - 8p + 8 - 14$$

Subtract like terms and simplify:

$$6a - 8p - 6$$

Hence, $(6a + 8) - (8p + 14) = 6a - 8p - 6$

Example 8

Subtract: $(22p + 9) - (29p - 1)$

Given binomials are:

First Binomial = $(22p + 9)$

Second Binomial = $(29p - 1)$

Form subtraction expression:

$$(22p + 9) - (29p - 1)$$

Open brackets and change signs of second binomial:

$$22p + 9 - 29p + 1$$

Arrange like terms together:

$$22p - 29p + 9 + 1$$

Subtract like terms and simplify:

$$-7p + 10$$

Hence, $(22p + 9) - (29p - 1) = -7p + 10$

Example 9

Subtract: $(7p + 7) - (28b - 9)$

Given binomials are:

First Binomial = $(7p + 7)$

Second Binomial = $(28b - 9)$

Form subtraction expression:

$$(7p + 7) - (28b - 9)$$

Open brackets and change signs of second binomial:

$$7p + 7 - 28b + 9$$

Arrange like terms together:

$$7p - 28b + 7 + 9$$

Subtract like terms and simplify:

$$7p - 28b + 16$$

Hence, $(7p + 7) - (28b - 9) = 7p - 28b + 16$

Example 10

Subtract: $(5p + 12) - (13p - 10)$

Given binomials are:

First Binomial = $(5p + 12)$

Second Binomial = $(13p - 10)$

Form subtraction expression:

$$(5p + 12) - (13p - 10)$$

Open brackets and change signs of second binomial:

$$5p + 12 - 13p + 10$$

Arrange like terms together:

$$5p - 13p + 12 + 10$$

Subtract like terms and simplify:

$$-8p + 22$$

Hence, $(5p + 12) - (13p - 10) = -8p + 22$

Example 11

Subtract: $(29m - 10) - (8m + 13)$

Given binomials are:

First Binomial = $(29m - 10)$

Second Binomial = $(8m + 13)$

Form subtraction expression:

$$(29m - 10) - (8m + 13)$$

Open brackets and change signs of second binomial:

$$29m - 10 - 8m - 13$$

Arrange like terms together:

$$29m - 8m - 10 - 13$$

Subtract like terms and simplify:

$$21m - 23$$

Hence, $(29m - 10) - (8m + 13) = 21m - 23$

Example 12

Subtract: $(30y - 12) - (11y - 11)$

Given binomials are:

First Binomial = $(30y - 12)$

Second Binomial = $(11y - 11)$

Form subtraction expression:

$$(30y - 12) - (11y - 11)$$

Open brackets and change signs of second binomial:

$$30y - 12 - 11y + 11$$

Arrange like terms together:

$$30y - 11y - 12 + 11$$

Subtract like terms and simplify:

$$19y - 1$$

Hence, $(30y - 12) - (11y - 11) = 19y - 1$

Example 13

Subtract: $(11p + 8) - (7y + 6)$

Given binomials are:

First Binomial = $(11p + 8)$

Second Binomial = $(7y + 6)$

Form subtraction expression:

$$(11p + 8) - (7y + 6)$$

Open brackets and change signs of second binomial:

$$11p + 8 - 7y - 6$$

Arrange like terms together:

$$11p - 7y + 8 - 6$$

Subtract like terms and simplify:

$$11p - 7y + 2$$

$$\text{Hence, } (11p + 8) - (7y + 6) = 11p - 7y + 2$$

Example 14

Subtract: $(14p + 12) - (27x - 13)$

Given binomials are:

First Binomial = $(14p + 12)$

Second Binomial = $(27x - 13)$

Form subtraction expression:

$$(14p + 12) - (27x - 13)$$

Open brackets and change signs of second binomial:

$$14p + 12 - 27x + 13$$

Arrange like terms together:

$$14p - 27x + 12 + 13$$

Subtract like terms and simplify:

$$14p - 27x + 25$$

Hence, $(14p + 12) - (27x - 13) = 14p - 27x + 25$

Example 15

Subtract: $(10y - 11) - (15y - 2)$

Given binomials are:

First Binomial = $(10y - 11)$

Second Binomial = $(15y - 2)$

Form subtraction expression:

$$(10y - 11) - (15y - 2)$$

Open brackets and change signs of second binomial:

$$10y - 11 - 15y + 2$$

Arrange like terms together:

$$10y - 15y - 11 + 2$$

Subtract like terms and simplify:

$$-5y - 9$$

Hence, $(10y - 11) - (15y - 2) = -5y - 9$

Example 16

Subtract: $(10a + 8) - (13a + 5)$

Given binomials are:

First Binomial = $(10a + 8)$

Second Binomial = $(13a + 5)$

Form subtraction expression:

$$(10a + 8) - (13a + 5)$$

Open brackets and change signs of second binomial:

$$10a + 8 - 13a - 5$$

Arrange like terms together:

$$10a - 13a + 8 - 5$$

Subtract like terms and simplify:

$$-3a + 3$$

Hence, $(10a + 8) - (13a + 5) = -3a + 3$

Example 17

Subtract: $(11x + 11) - (23x - 1)$

Given binomials are:

First Binomial = $(11x + 11)$

Second Binomial = $(23x - 1)$

Form subtraction expression:

$$(11x + 11) - (23x - 1)$$

Open brackets and change signs of second binomial:

$$11x + 11 - 23x + 1$$

Arrange like terms together:

$$11x - 23x + 11 + 1$$

Subtract like terms and simplify:

$$-12x + 12$$

Hence, $(11x + 11) - (23x - 1) = -12x + 12$

Example 18

Subtract: $(15a - 5) - (21p + 3)$

Given binomials are:

First Binomial = $(15a - 5)$

Second Binomial = $(21p + 3)$

Form subtraction expression:

$$(15a - 5) - (21p + 3)$$

Open brackets and change signs of second binomial:

$$15a - 5 - 21p - 3$$

Arrange like terms together:

$$15a - 21p - 5 - 3$$

Subtract like terms and simplify:

$$15a - 21p - 8$$

Hence, $(15a - 5) - (21p + 3) = 15a - 21p - 8$

Example 19

Subtract: $(8b - 7) - (19b - 1)$

Given binomials are:

First Binomial = $(8b - 7)$

Second Binomial = $(19b - 1)$

Form subtraction expression:

$$(8b - 7) - (19b - 1)$$

Open brackets and change signs of second binomial:

$$8b - 7 - 19b + 1$$

Arrange like terms together:

$$8b - 19b - 7 + 1$$

Subtract like terms and simplify:

$$-11b - 6$$

Hence, $(8b - 7) - (19b - 1) = -11b - 6$

Example 20

Subtract: $(14p - 8) - (22p - 11)$

Given binomials are:

First Binomial = $(14p - 8)$

Second Binomial = $(22p - 11)$

Form subtraction expression:

$$(14p - 8) - (22p - 11)$$

Open brackets and change signs of second binomial:

$$14p - 8 - 22p + 11$$

Arrange like terms together:

$$14p - 22p - 8 + 11$$

Subtract like terms and simplify:

$$-8p + 3$$

Hence, $(14p - 8) - (22p - 11) = -8p + 3$