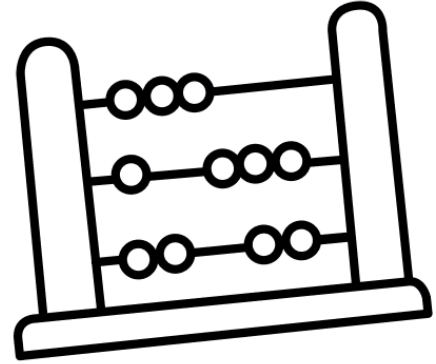


Farqiga laba labajibbaaran (Difference of two squares)



Maths

Cutub: Tibaaxaha iyo qaaciidooyinka (Expressions and formulae)

Natiijo

Waxaan isticmaali karaa kiiska gaarka ah marka wax soo saarka laba binomial uu yahay farqiga laba labajibbaaran.

Erayada muhiimka ah

Binomial waa tibaax aljabra ah oo matalaysa wadar ama farqi laba eray oo aan isku mid ahayn.

Tusaalooyin

$$x + 2 \qquad x^2 - x$$

$$5 - 6x \qquad a + 2y$$

Wax soo saar qayb ah (partial product) wuxuu ka mid yahay natiijooyinka isku dhufashada ee keena natijada guud.

Farqiga laba labajibbaaran



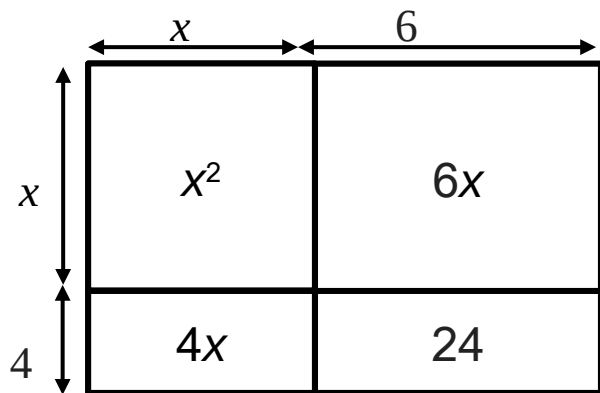
Isku dhufashada binomials



Aqoonsiga farqiga laba labajibbaaran

Waxaan isticmaali karnaa moodellada bedka si aan u helno wax soo saarka laba binomial. Tusaale $(x + 4)(x + 6)$

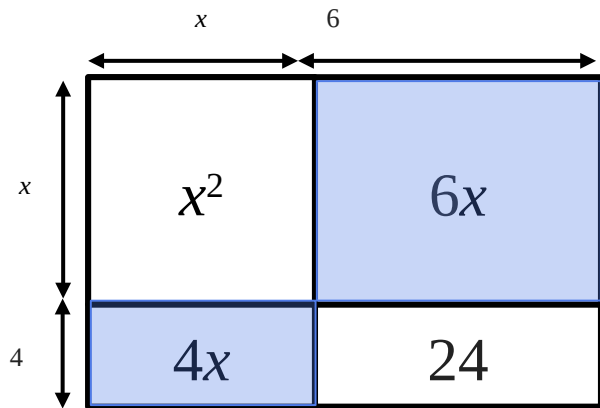
Ma khusayso binomial kee baa lagu qoray dhererka moodellada bedka.



$$(x + 4)(x + 6) \\ \equiv x^2 + 6x + 4x + 24$$

Ma waxaan u qori karnaa wax soo saarkan si ka fudud?

Sidee ku ogaatay?



$$(x + 4)(x + 6)$$

$$\equiv x^2 + 6x + 4x + 24$$

Waxaa jira erayo isku mid ah oo ku jira wax soo saarkayaga, sidaas darteed waa lagu dari karaa si ay u noqdaan hal eray.

$$\equiv x^2 + 10x + 24$$

Erayga x^2

Erayga x

Erayga joogtada ah (constant term)

Tibaaxayada kama dambaysta ah wuxuu hadda leeyahay saddex eray.

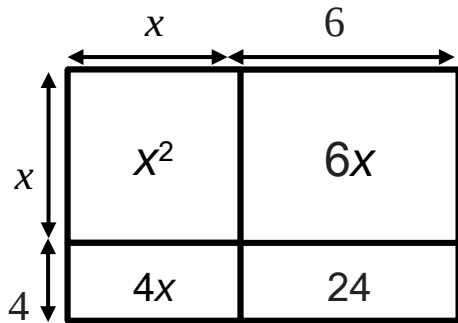


Diagram illustrating the expansion of $(x + 4)(x + 6)$ using the area model. The rectangle is divided into four quadrants: top-left is x^2 , top-right is $6x$, bottom-left is $4x$, and bottom-right is 24 . The dimensions are labeled as x and 6 for the top, and x and 4 for the left.

$$(x + 4)(x + 6) \equiv x^2 + 10x + 24$$

Imisa erey (terms) ayaa tibaaxahani leh marka la fidiya (expand) oo la fududeeyo (simplify)?

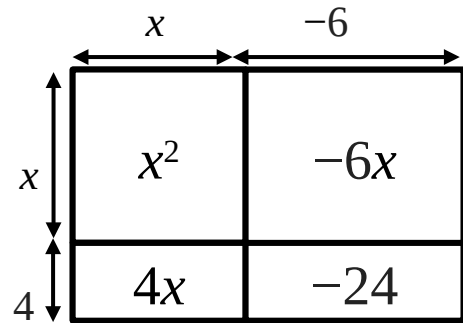


Diagram illustrating the expansion of $(x + 4)(x - 6)$ using the area model. The rectangle is divided into four quadrants: top-left is x^2 , top-right is $-6x$, bottom-left is $4x$, and bottom-right is -24 . The dimensions are labeled as x and -6 for the top, and x and 4 for the left.

$$(x + 4)(x - 6) \equiv x^2 - 2x - 24$$

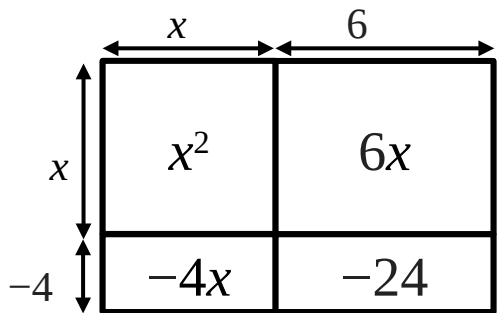


Diagram illustrating the expansion of $(x - 4)(x + 6)$ using the area model. The rectangle is divided into four quadrants: top-left is x^2 , top-right is $6x$, bottom-left is $-4x$, and bottom-right is -24 . The dimensions are labeled as x and 6 for the top, and x and -4 for the left.

$$(x - 4)(x + 6) \equiv x^2 + 2x - 24$$

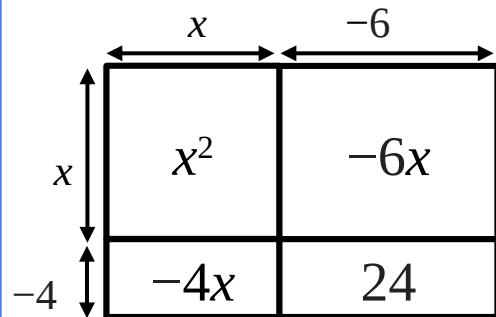


Diagram illustrating the expansion of $(x - 4)(x - 6)$ using the area model. The rectangle is divided into four quadrants: top-left is x^2 , top-right is $-6x$, bottom-left is $-4x$, and bottom-right is 24 . The dimensions are labeled as x and -6 for the top, and x and -4 for the left.

$$(x - 4)(x - 6) \equiv x^2 - 10x + 24$$

$$(x + 4)(x + 6)$$
$$\equiv x^2 + 10x + 24$$

Dhammaan tusaalooyinkan waxay lahaayeen saddex erey (terms) marka la fidiya (expand) oo la fududeeyo (simplify).

Miyaa tani had iyo jeer sidaas noqonaysaa?

$$(x + 4)(x - 6)$$
$$\equiv x^2 - 2x - 24$$

Marka la isku dhufanayo laba binomial (binomials), had iyo jeer waxaa jira afar qaybood oo qayb ahaan ah (partial products).

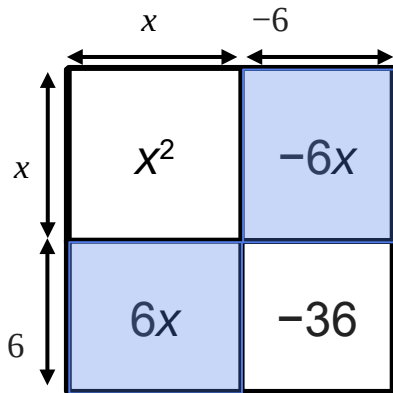
$$(x - 4)(x + 6)$$
$$\equiv x^2 + 2x - 24$$

Waxaan ku dhamaystay saddex erey (terms) tusaalooyinkan oo dhan sababtoo ah laba ka mid ah qaybaha qayb ahaan (partial products) waxay ahaayeen ereyo isku mid ah (like terms) oo la fududayn karo hal erey (term).

$$(x - 4)(x - 6)$$
$$\equiv x^2 - 10x + 24$$

Ma suurtagal tahay in lagu dhammeeyo wax ka yar saddex erey (terms)?

Aan tijaabino: $(x + 6)(x - 6)$



$$(x + 6)(x - 6)$$

$$\equiv x^2 + 6x - 6x - 36$$

Maxaa dhacaya marka aan soo ururino ereyada isku midka ah (like terms) markan?

Ereyada x (x terms) waa is-dhufashooyin is-dar ah (additive inverses) oo midba midka kale.

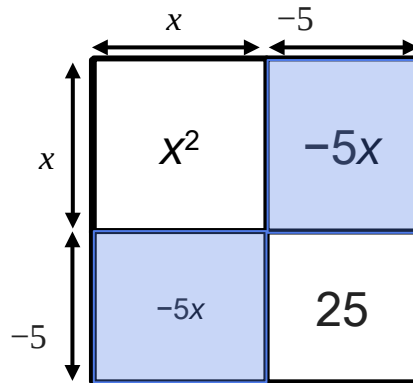
Waa lammaane eber (zero pair) sidaas darteed waxay isu geyn doonaan eber.

$$\equiv x^2 + 0x - 36$$

$$\equiv x^2 - 36$$

Tusaalahaas waxaa jiray 6 labada binomial (binomials) labadaba. Waxaan u malaynayaa in $(x - 5)(x - 5)$ ay sidoo kale yeelan doonto laba erey (terms) marka la fududeeyo (simplify).

Maxaad u malaynaysaa?



$$(x - 5)(x - 5)$$

$$\equiv x^2 - 5x - 5x + 25$$

$$\equiv x^2 - 10x + 25$$



Caasha

Ereyadani ma aha lammaane eber (zero pair).

Marka la fududeeyo (simplify) tibaaxdu waxay noqonaysaa.

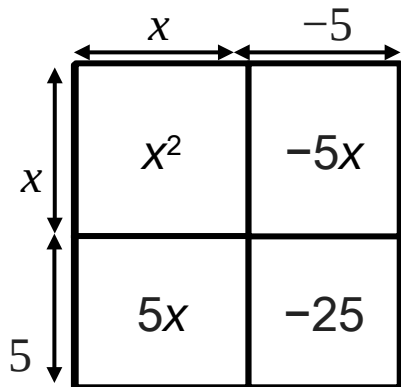
Isku dhufashada laba binomial (Multiplying binomials)



Maxaan ku beddeli karnaa tibaaxdan si laba ka mid ah qaybaha qayb ahaan (partial products) ay u noqdaan lammaane eber (zero pair)?

$$(x + 5)(x - 5)$$

Mid ka mid ah ereyada joogtada ah (constant terms) waa inuu noqdaa mid togan (positive) midna waa inuu noqdaa mid taban (negative).



$$\equiv x^2 - 5x + 5x - 25$$

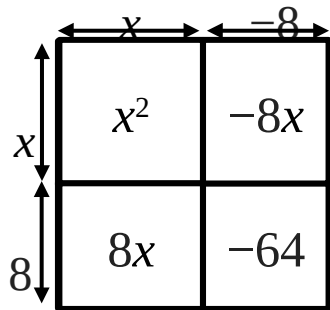
$$\equiv x^2 + 0x - 25 \quad \equiv x^2 - 25$$

Isku dhufashada laba binomial (Multiplying binomials)

Ma waxaad u malaynaysaa in mid ka mid ah alaabooyinkan laba binomial ah la fududeyn karo si uu u noqdo tibaax laba eray ah?

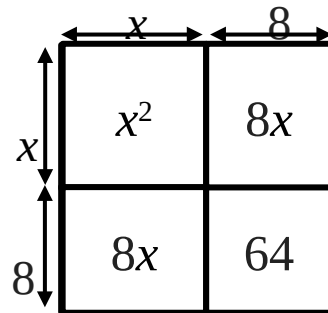
$$(x + 8)(x - 8)$$

$$\equiv x^2 - 64$$



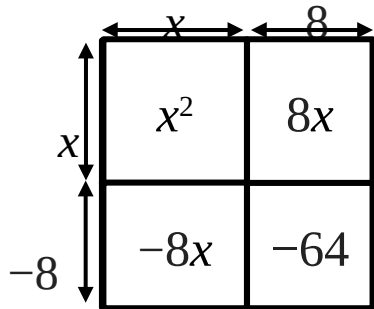
$$(x + 8)(x + 8)$$

$$\equiv x^2 + 16x + 64$$



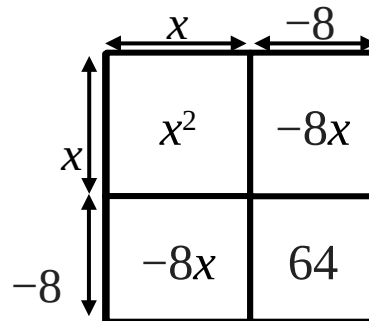
$$(x - 8)(x + 8)$$

$$\equiv x^2 - 64$$



$$(x - 8)(x - 8)$$

$$\equiv x^2 - 16x + 64$$

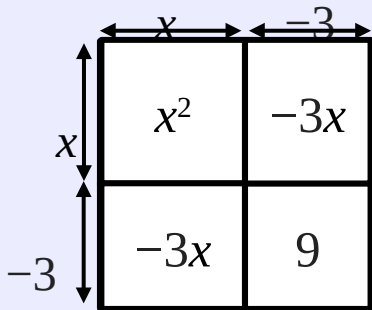


Isku dhufashada binomials

Kee ka mid ah alaabooyinkan laba binomial ah ayaa la fududeyn karaa si uu u noqdo tibaax laba eray ah?

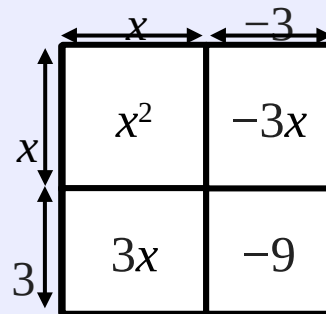
$$(x - 3)(x - 3)$$

$$\equiv x^2 - 6x + 9$$



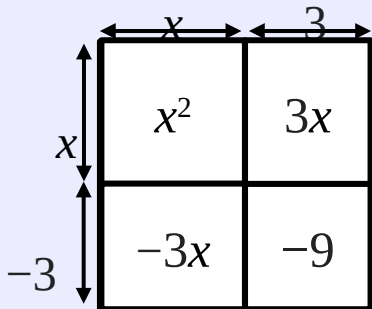
$$(x + 3)(x - 3)$$

$$\equiv x^2 - 9$$



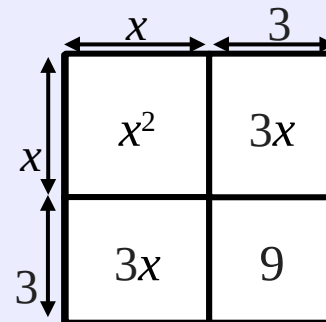
$$(x - 3)(x + 3)$$

$$\equiv x^2 - 9$$



$$(x + 3)(x + 3)$$

$$\equiv x^2 + 6x + 9$$



Kee ka mid ah alaabooyinkan laba binomial ah ayaa la fududeyn karaa si uu u noqdo tibaax laba eray ah?

$$(x + 4)(x - 4)$$



$$\equiv x^2 - 4x + 4x - 16$$

$$\equiv x^2 - 16$$

$$(x + 4)(x - 2)$$

$$\equiv x^2 - 2x + 4x - 8$$

$$\equiv x^2 + 2x - 8$$

$$(x - 4)(x - 4)$$

$$\equiv x^2 - 4x - 4x + 16$$

$$\equiv x^2 - 8x + 16$$

$$(x - 2)(x - 2)$$

$$\equiv x^2 - 2x - 2x + 4$$

$$\equiv x^2 - 4x + 4$$

$$(x - 2)(x - 4)$$

$$\equiv x^2 - 4x - 2x + 8$$

$$\equiv x^2 - 6x + 8$$

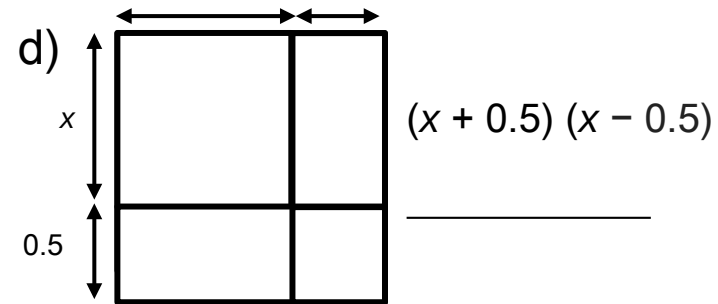
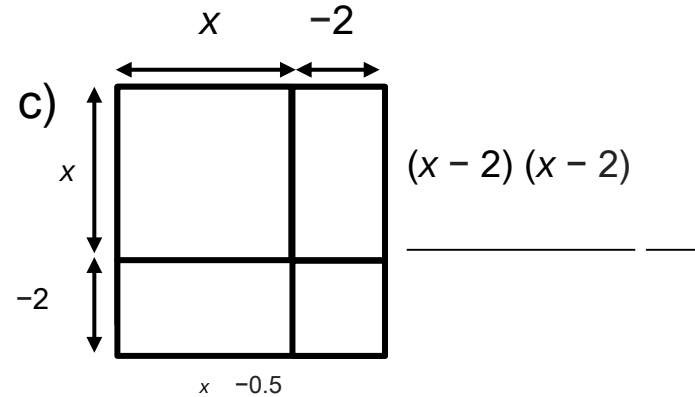
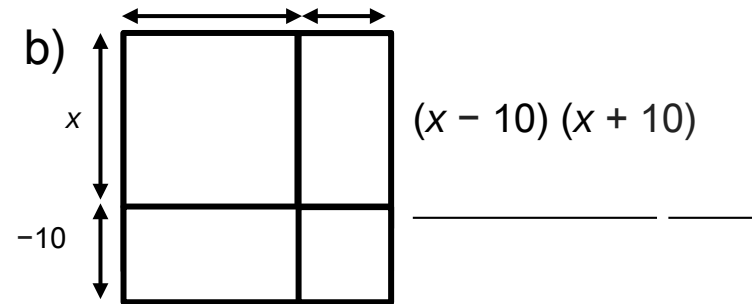
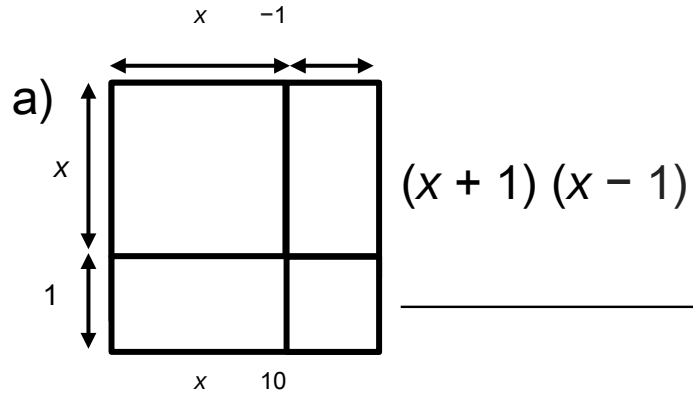
$$(x - 2)(x + 2)$$



$$\equiv x^2 + 2x - 2x - 4$$

$$\equiv x^2 - 4$$

1) Buuxi moodellada aagga ee alaabooyinkan laba binomial ah. U qor jawaabtaada tibaax fududaysan



2) Kee ka mid ah alaabooyinkan laba binomial ah ayaa la fududeyn karaa si uu u noqdo tibaax si sax ah laba eray ah?

a) $(x + 9)(x - 8)$ e) $(x + 7)(x + 7)$ i) $(x + \frac{11}{2})(x - 5.5)$

b) $(x - 9)(x - 9)$ f) $(x + 11)(x - 11)$ j) $(x - 0.8)(x + \frac{4}{5})$

c) $(x - 6)(x + 5)$ g) $(x - 2.4)(x + 2.4)$ k) $(x + \frac{3}{8})(x - 0.37)$

d) $(x - 13)(x + 13)$ h) $(x - 5)(x + 5.5)$ l) $(x + \frac{17}{20})(x - 1.85)$

3) Isku xir binomial ku yaal tiirka bidix iyo binomial ku yaal tiirka dhexe, oo ka hel alaabtiisa tiirka dhamaadka.

a)	$(x - 6)$	i)	$(x - 9)$	q)	$x^2 - 49$
b)	$(x - 5)$	j)	$(x - 7)$	r)	$x^2 + 5x - 36$
c)	$(x - 2)$	k)	$(x - 5)$	s)	$x^2 - 4$
d)	$(x + 1)$	l)	$(x - 4)$	t)	$x^2 - 1$
e)	$(x + 2)$	m)	$(x - 2)$	u)	$x^2 - 10x + 25$
f)	$(x + 4)$	n)	$(x - 1)$	v)	$x^2 - x - 2$
g)	$(x + 7)$	o)	$(x + 1)$	w)	$x^2 - 5x - 36$
h)	$(x + 9)$	p)	$(x + 6)$	x)	$x^2 - 36$

1) Buuxi moodellada aagga ee alaabooyinkan laba binomial ah. U qor jawaabtaada tibaax fududaysan

a)

	x	-1	
x	x^2	$-x$	
1	x	-1	
	x	-1	

$$(x + 1)(x - 1)$$

$$\equiv x^2 - x + x - 1$$

$$\equiv x^2 - 1$$

b)

	x	10	
x	x^2	$10x$	
-10	$-10x$	-100	
	x	10	

$$(x - 10)(x + 10)$$

$$\equiv x^2 - 10x + 10x - 100$$

$$\equiv x^2 - 100$$

c)

	x	-2	
x	x^2	$-2x$	
-2	$-2x$	4	
	x	-2	

$$(x - 2)(x - 2)$$

$$\equiv x^2 - 2x - 2x - 4$$

$$\equiv x^2 - 4x - 4$$

d)

	x	-0.5	
x	x^2	$-0.5x$	
0.5	$0.5x$	-0.25	
	x	-0.5	

$$(x + 0.5)(x - 0.5)$$

$$\equiv x^2 - 0.5x + 0.5x - 0.25$$

$$\equiv x^2 - 0.25$$

2) Kee ka mid ah alaabooyinkan laba binomial ah ayaa la fududeyn karaa si uu u noqdo tibaax si sax ah laba eray ah?

a) $(x + 9)(x - 8)$

e) $(x + 7)(x + 7)$

i) $(x + \frac{11}{2})(x - 5.5)$

b) $(x - 9)(x - 9)$

f) $(x + 11)(x - 11)$

j) $(x - 0.8)(x + \frac{4}{5})$

c) $(x - 6)(x + 5)$

g) $(x - 2.4)(x + 2.4)$

k) $(x + \frac{3}{8})(x - 0.37)$

d) $(x - 13)(x + 13)$

h) $(x - 5)(x + 5.5)$

l) $(x - \frac{17}{20})(x - 1.85)$

3) Isku xir binomial ku yaal tiirka bidix iyo binomial ku yaal tiirka dhexe, oo ka hel alaabtiisa tiirka dhamaadka.

a)	$(x - 6)$	p)	$(x + 6)$	x)	$x^2 - 36$
b)	$(x - 5)$	k)	$(x - 5)$	u)	$x^2 - 10x + 25$
c)	$(x - 2)$	o)	$(x + 1)$	v)	$x^2 - x - 2$
d)	$(x + 1)$	n)	$(x - 1)$	t)	$x^2 - 1$
e)	$(x + 2)$	m)	$(x - 2)$	s)	$x^2 - 4$
f)	$(x + 4)$	i)	$(x - 9)$	w)	$x^2 - 5x - 36$
g)	$(x + 7)$	j)	$(x - 7)$	q)	$x^2 - 49$
h)	$(x + 9)$	l)	$(x - 4)$	r)	$x^2 + 5x - 36$

Farqiga laba labajibbaaran



Isku dhufashada binomials



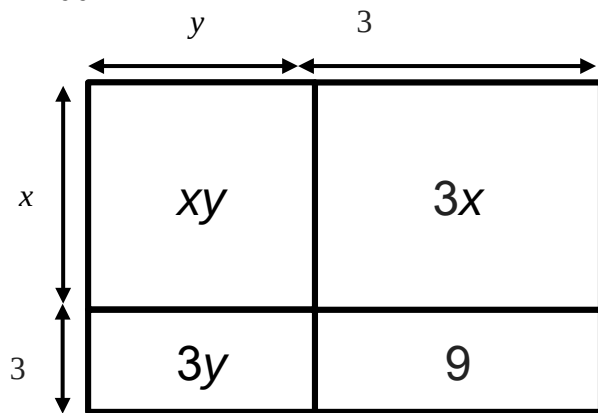
Aqoonsiga farqiga laba labajibbaaran

Ma isticmaali karaa qaabka bedka (area model) si aan ugu dhufsado $(x + 3)(y + 3)$?

Nuur wuxuu rabaa inuu helo badeecada (product) laba binomial, marka qaabka bedka (area model) waa la isticmaali karaa.



Nuur



$$x \times y \equiv xy$$

$$x \times 3 \equiv 3x$$

$$3 \times y \equiv 3y$$

$$3 \times 3 \equiv 9$$

$$\equiv xy + 3x + 3y + 9$$

Midkoodna ma aha ereyo (like terms) isku mid ah.

Marka markan waxaa jira 4 erey (terms) oo ku jira tibaaxaha la fududeeyay (simplified expression).



Caasha

Marka la dhufanayo laba binomial, had iyo jeer waxaa jira afar badeecad qayb ah (partial products).

Waxaan aragnay tusaalayaal halka kuwaas loo fududeyn karo tibaaxaha leh saddex erey (terms) sababtoo ah laba ka mid ah ereyada ayaa isku mid ah.

Waan ognahay in haddii labadan erey ee isku midi ay yihiin lammaane eber (zero pairs), markaas tibaaxuhu waxay yeelan doonaan laba erey (terms) marka la fududeeyo.

Haddii mid ka mid ah ereyada (terms) aysan isku mid ahayn, markaas waxaa jiri doona afar erey (terms) oo ku jira qaabka la ballaariyay (expanded form).

Midkee ka mid ah kuwan ayaa u malaynaysaa inuu yeelan doono afar erey (terms) oo ku jira qaabka la ballaariyay (expanded form)?

$$(x + 10)(x - 10)$$

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

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

$$(x + y)(x - y)$$

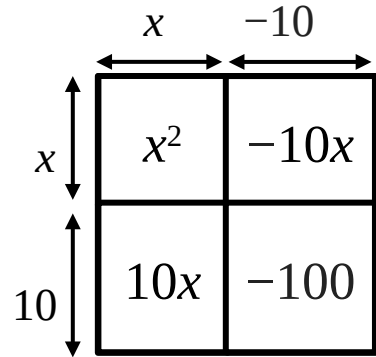
$$(x + y)(x + y)$$

Aqoonsiga kala duwanaanshaha laba labajibbaaran (difference of two squares)



Sharaxaad

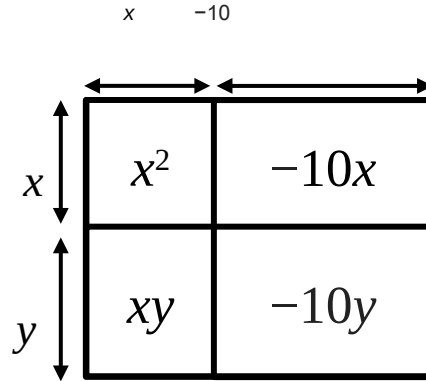
$$(x + 10)(x - 10)$$



$$\equiv x^2 - 100$$

2 erey (terms)

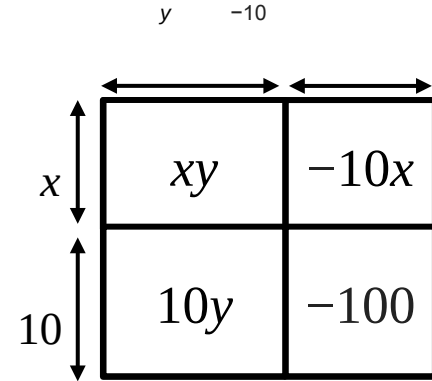
$$(x + y)(x - 10)$$



$$\equiv x^2 - 10x + xy - 10y$$

4 erey (terms)

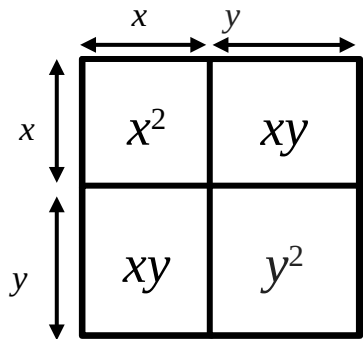
$$(x + 10)(y - 10)$$



$$\equiv xy - 10x + 10y - 100$$

4 erey (terms)

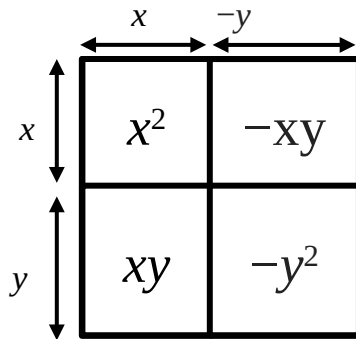
$$(x + y)(x + y)$$



$$\equiv x^2 + 2xy + y^2$$

3 erey (terms)

$$(x + y)(x - y)$$



$$\equiv x^2 - y^2$$

2 erey (terms)

Tirada ereyada waxay ku xidhnayd dabeecadda ereyada isku midka ah (like terms).

Waxaan diiradda saaraynaa kiisaska leh laba erey.

Waxaan u malaynayaa in labajibaarista binomial (squaring a binomial) ay soo saari doonto wax soo saar (product) oo la fududeyn karo ilaa laba erey?

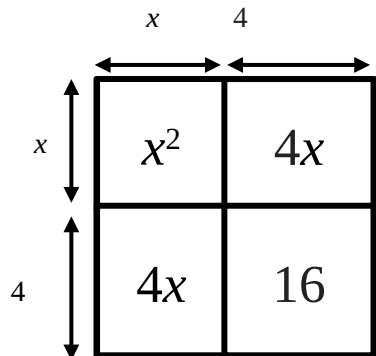
Ma waafaqsan tahay?



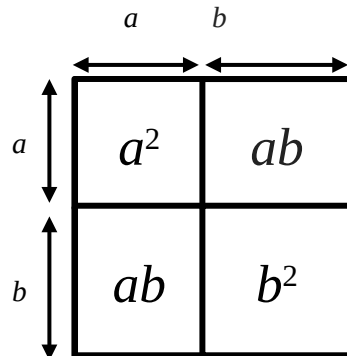
Nuur

$$(x + 4)^2 \equiv (x + 4)(x + 4) \equiv x^2 + 8x + 16$$

$$(a + b)^2 \equiv (a + b)(a + b) \equiv a^2 + 2ab + b^2$$



Nuur waa khalad



Aqoonsiga farqiga laba labo jibaaran (difference of two squares)

Waxaan u malaynayaa in laba ka mid ah ereyada ay yihiin kuwa iska soo horjeeda (additive inverses).

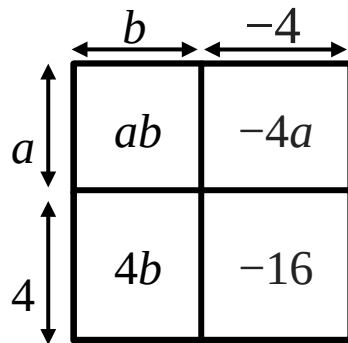
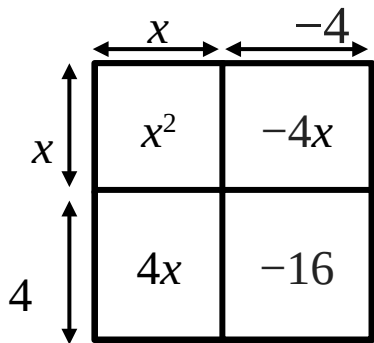
Ma waafaqsan tahay?



$$(x + 4)(x - 4) \equiv x^2 - 16$$

$$(a + 4)(b - 4) \equiv ab - 4a + 4b - 16$$

Aisha



Caasha waxay ku saxsan tahay - hal erey waa inuu isku mid ahaadaa qaws kasta (bracket), kuwa kalena waa inay ahaadaan lammaane eber (zero pair).

Identifying difference of two squares

Waa kuwan qaar ka mid ah tusaalooyinka aan soo aragnay.

$$(x + 3)(x - 3)$$

$$(x + 10)(x - 10)$$

$$(x + y)(x - y)$$

$$\equiv x^2 - 9$$

$$\equiv x^2 - 100$$

$$\equiv x^2 - y^2$$

Maxaad dareensan tahay?

Waxaa laga yaabaa inaad tidhi:

Dhammaan tusaalooyinkan waxay leeyihiin x^2 sababtoo ah binomial kastaa wuxuu leeyahay x .

The second term in the expanded form is negative.

9 iyo 100 waa tirooyin laba jibaaran (square numbers).

Identifying difference of two squares

Waxaan u isticmaali karnaa algebra si aan u guud uga dhigno oo aan u sahamino qaabka kiisaskan gaarka ah.

If a product of two binomials is in the form $(a + b)(a - b)$ where a and b are any terms.

Tan waxaa loo qori karaa:

$$\equiv a^2 + ab - ab - b^2$$

$$\equiv a^2 - b^2$$

Qaabkan waxaa loo yaqaan farqiga laba jibaaran (difference of two squares).

Waxay muujinaysaa farqiga u dhexeeya a^2 iyo b^2 .

Identifying difference of two squares

Kee ka mid ah kuwan ayaa leh wax soo saar (product) loo qori karo farqiga laba jibaaran?

$$(x + 3)(x - 3)$$

$$(x + 3)(x + 3)$$

$$(y + 4)(x - 4)$$

$$(x + y)(x - y)$$

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

$$(y - x)(y - x)$$

$$(x + 3)(x - 3)$$

$$\equiv x^2 - 3^2$$

$$\equiv x^2 - 9$$

$$(x + y)(x - y)$$

$$\equiv x^2 - y^2$$

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

$$\equiv y^2 - (2x)^2$$

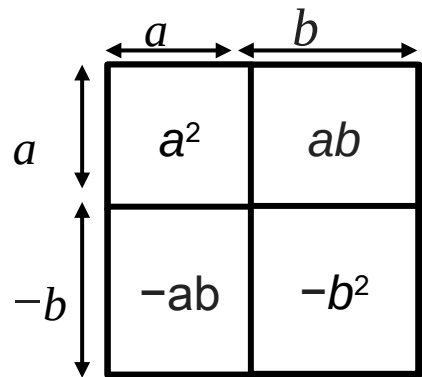
$$\equiv y^2 - 4x^2$$

Qaabka bedka (area model) ayaa weli lagu talinayaa si loo hubiyo in aan wax badeecad qayb ah laga maqin.

Identifying difference of two squares

Xisaabi wax soo saarka labadan binomial.

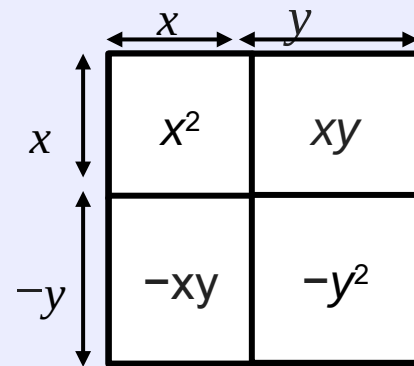
$$(a + b)(a - b)$$



$$\equiv a^2 - b^2$$

Xisaabi wax soo saarka labadan binomial.

$$(x + y)(x - y)$$



$$\equiv x^2 - y^2$$

Aqoonsiga farqiga laba labajibbaaran (difference of two squares)



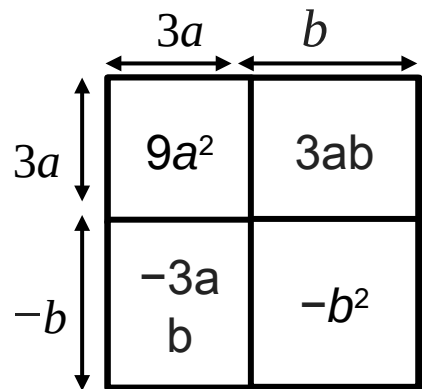
Sharaxaad



Hubi

Xisaabi wax soo saarka labadan binomial.

$$(3a + b)(3a - b)$$

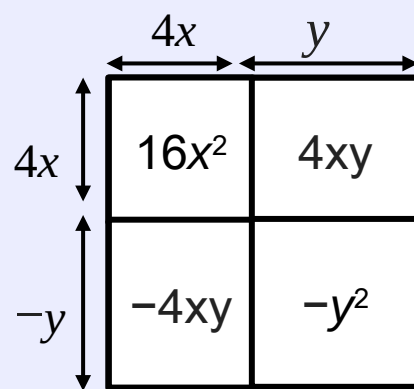


$$\equiv 9a^2 - b^2$$

Ama $(3a)^2 - b^2$

Xisaabi wax soo saarka labadan binomial.

$$(4x + y)(4x - y)$$



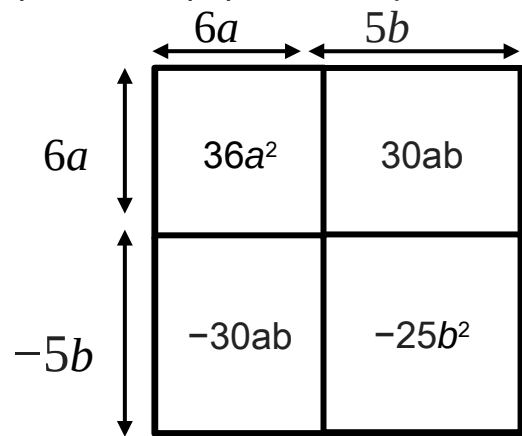
$$\equiv 16x^2 - y^2$$

Ama $(4x)^2 - y^2$

Aqoonsiga farqiga laba labajibbaaran (difference of two squares)

Xisaabi wax soo saarka labadan binomial.

$$(6a + 5b)(6a - 5b)$$

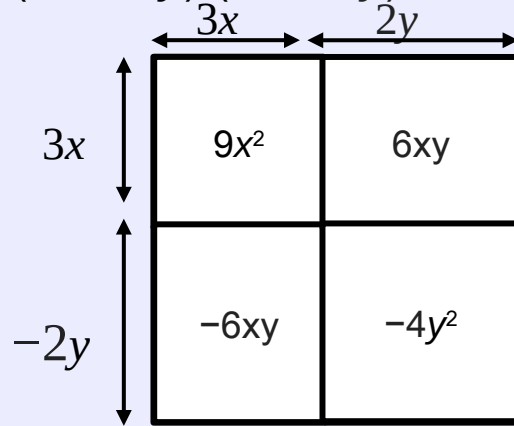


$$\equiv 36a^2 - 25b^2$$

Ama $(6a)^2 - (5b)^2$

Xisaabi wax soo saarka labadan binomial.

$$(3x + 2y)(3x - 2y)$$



$$\equiv 9x^2 - 4y^2$$

Ama $(3x)^2 - (2y)^2$

1) Mid ka mid ah alaabooyinkan laba binomial (binomials) ah ayaa loo qori karaa farqiga laba jibbaaran?

a) $(x + 1)(x - 4)$

e) $(x - y)(x + y)$

i) $(7xy - 3)(7xy + 3)$

b) $(y + 1)(x - 1)$

f) $(3a - b)(3a - b)$

j) $(3x - 2y)(-3x + 2y)$

c) $(a - 46)(a + 46)$

g) $(10 + x)(10 - x)$

2) Buuxi qaababka bedka (area models) alaabooyinkan laba binomial. U qor jawaabtaada farqiga laba jibbaaran.

a)

y^2	
	-400

 $(y + 20)(y - 20) \equiv$ _____

c)

	$-4y^2$

 $(x - 2y)(x + 2y) \equiv$ _____

b)

	$10x$
$-10x$	

 $(x - 10)(x + 10) \equiv$ _____

d)

 $(a - 3b)(a + 3b) \equiv$ _____

2) Buuxi qaababka bedka alaabooyinkan laba binomial. U qor jawaabtaada farqiga laba jibbaaran.

e)

9	$-3x$

 $(3 + x)(3 - x)$
 $\equiv$ _____

g)

x^2	
	16

 $(x - \underline{\hspace{1cm}})(x + \underline{\hspace{1cm}})$
 $\equiv x^2 - 16$

f)

 $(2y - 3x)(2y + 3x)$
 $\equiv$ _____

h)

$25a^2$	$15ab$
	$-9b^2$

 $(\underline{\hspace{1cm}} + \underline{\hspace{1cm}})(\underline{\hspace{1cm}} - \underline{\hspace{1cm}})$
 $\equiv (\underline{\hspace{1cm}})^2 - (\underline{\hspace{1cm}})^2$
 $\equiv 25a^2 - 9b^2$

1) Mid ka mid ah alaabooyinkan laba binomial ah ayaa loo qori karaa farqiga laba jibbaaran?

a) $(x + 1)(x - 4)$

e) $(x - y)(x + y)$

i) $(xy - 3)(xy + 3)$

b) $(y + 1)(x - 1)$

f) $(3a - b)(3a - b)$

j) $(3x - 2y)(-3x + 2y)$

c) $(a - 46)(a + 46)$

g) $(10 + x)(10 - x)$

$$\equiv 10^2 - x^2 \equiv 100 - x^2$$

Mid ka mid ah ereyada (terms) qaws kasta (bracket) waa inuu isku mid yahay, labada kalena waa inay noqdaan lammaane eber (zero pair). Labadooduba waa lammaane eber.

2) Buuxi qaababka bedka alaabooyinkan laba binomial. U qor jawaabtaada farqiga laba jibbaaran.

a)

y^2	$20y$
$-20y$	-400

$$(y + 20)(y - 20)$$
$$\equiv y^2 - 20^2$$
$$\equiv y^2 - 400$$

c)

x^2	$2xy$
$-2xy$	$-4y^2$

$$(x - 2y)(x + 2y)$$
$$\equiv x^2 - (2y)^2$$
$$\equiv x^2 - 4y^2$$

b)

x^2	$10x$
$-10x$	-100

$$(x - 10)(x + 10)$$
$$\equiv x^2 - 10^2$$
$$\equiv x^2 - 100$$

d)

a^2	$3ab$
$-3ab$	$-9b^2$

$$(a - 3b)(a + 3b)$$
$$\equiv a^2 - (3b)^2$$
$$\equiv a^2 - 9b^2$$

2) Buuxi qaababka bedka alaabooyinkan laba binomial. U qor jawaabtaada farqiga laba jibbaaran.

e)

9	$-3x$
$3x$	$-x^2$

$$(3 + x)(3 - x)$$

$$\equiv 3^2 - x^2$$

$$\equiv 9 - x^2$$

g)

x^2	$4x$
$-4x$	-16

$$(x - 4)(x + 4)$$

$$\equiv x^2 - 4^2$$

$$\equiv x^2 - 16$$

f)

$4y^2$	$6xy$
$-6xy$	$-9x^2$

$$(2y - 3x)(2y + 3x)$$

$$\equiv (2y)^2 - (3x)^2$$

$$\equiv 4y^2 - 9x^2$$

h)

$25a^2$	$15ab$
$-15ab$	$-9b^2$

$$(5a + 3b)(5a - 3b)$$

$$\equiv (5a)^2 - (3b)^2$$

$$\equiv 25a^2 - 9b^2$$

Wax soo saarka laba binomial (binomials) had iyo jeer wuxuu soo saaraa afar qaybood oo qayb ahaan ah.

Inta badan kuwani waxaa la fududeyn karaa saddex eray.

Waxaa jira xaalado ay laba ka mid ah erayadu yihiin lammaane eber (zero pairs) sidaas darteed qaybaha qayb ahaan waxaa la fududeyn karaa laba eray.

Haddii hal eray oo ka mid ah binomial kasta uu yahay isku mid iyo labada eray ee kale ay yihiin lammaane eber (zero pairs) markaas wax soo saarku waa farqiga laba labajibbaaran (difference of two squares).