Kvadrat zbroja i razlike

Ivica Đuzel, prof.
SMŠ Žepče

December 5, 2018

1. Kvadrat zbroja i razlika
2. Kvadriraj prema formulama
3. Rastavi na faktore prema formulama
4. Pronađi netočne odgovore

$$(I \pm II)^2 = I^2 \pm 2 \cdot I \cdot II + II^2$$

$(I \pm II)^2 = I^2 \pm 2 \cdot I \cdot II + II^2$

$$(2a + 3b)^2$$

$(I \pm II)^2 = I^2 \pm 2 \cdot I \cdot II + II^2$

$$(2a + 3b)^2 \quad = \quad (2a)^2 + 2 \cdot (2a) \cdot (3b) + (3b)^2$$

$(I \pm II)^2 = I^2 \pm 2 \cdot I \cdot II + II^2$

$$\begin{aligned}(2a+3b)^2 &= (2a)^2 + 2 \cdot (2a) \cdot (3b) + (3b)^2 \\ &= 4a^2 + 12ab + 9b^2\end{aligned}$$

$(I \pm II)^2 = I^2 \pm 2 \cdot I \cdot II + II^2$

$$\begin{aligned}(2a+3b)^2 &= (2a)^2 + 2 \cdot (2a) \cdot (3b) + (3b)^2 \\ &= 4a^2 + 12ab + 9b^2\end{aligned}$$

$$16x^2 - 40xy + 25y^2$$

$(I \pm II)^2 = I^2 \pm 2 \cdot I \cdot II + II^2$

$$\begin{aligned}(2a+3b)^2 &= (2a)^2 + 2 \cdot (2a) \cdot (3b) + (3b)^2 \\ &= 4a^2 + 12ab + 9b^2\end{aligned}$$

$$16x^2 - 40xy + 25y^2 = (4x)^2 - 2 \cdot (4x) \cdot (5y) + (5y)^2$$

$(I \pm II)^2 = I^2 \pm 2 \cdot I \cdot II + II^2$

$$\begin{aligned} (2a+3b)^2 &= (2a)^2 + 2 \cdot (2a) \cdot (3b) + (3b)^2 \\ &= 4a^2 + 12ab + 9b^2 \end{aligned}$$

$$\begin{aligned} 16x^2 - 40xy + 25y^2 &= (4x)^2 - 2 \cdot (4x) \cdot (5y) + (5y)^2 \\ &= (4x - 5y)^2 \end{aligned}$$

Kvadriraj prema formuli

Kvadriraj prema formuli

$$(2+x)^2$$
$$(3-x)^2$$
$$(12+a)^2$$
$$(a-5)^2$$
$$(3a+b)^2$$
$$(2a-b)^2$$
$$(4a+5b)^2$$
$$(4a-3b)^2$$
$$(a+7b)^2$$
$$(8a-10b)^2$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 & \\
(12+a)^2 & \\
(a-5)^2 & \\
(3a+b)^2 & \\
(2a-b)^2 & \\
(4a+5b)^2 & \\
(4a-3b)^2 & \\
(a+7b)^2 & \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$(2+x)^2 = 4+4x+x^2$$
$$(3-x)^2 = 9-6x+x^2$$
$$(12+a)^2$$
$$(a-5)^2$$
$$(3a+b)^2$$
$$(2a-b)^2$$
$$(4a+5b)^2$$
$$(4a-3b)^2$$
$$(a+7b)^2$$
$$(8a-10b)^2$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 & \\
(3a+b)^2 & \\
(2a-b)^2 & \\
(4a+5b)^2 & \\
(4a-3b)^2 & \\
(a+7b)^2 & \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 &= a^2-10a+25 \\
(3a+b)^2 & \\
(2a-b)^2 & \\
(4a+5b)^2 & \\
(4a-3b)^2 & \\
(a+7b)^2 & \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 &= a^2-10a+25 \\
(3a+b)^2 &= 9a^2+6ab+b^2 \\
(2a-b)^2 & \\
(4a+5b)^2 & \\
(4a-3b)^2 & \\
(a+7b)^2 & \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 &= a^2-10a+25 \\
(3a+b)^2 &= 9a^2+6ab+b^2 \\
(2a-b)^2 &= 4a^2-4ab+b^2 \\
(4a+5b)^2 & \\
(4a-3b)^2 & \\
(a+7b)^2 & \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 &= a^2-10a+25 \\
(3a+b)^2 &= 9a^2+6ab+b^2 \\
(2a-b)^2 &= 4a^2-4ab+b^2 \\
(4a+5b)^2 &= 16a^2+40ab+25b^2 \\
(4a-3b)^2 & \\
(a+7b)^2 & \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 &= a^2-10a+25 \\
(3a+b)^2 &= 9a^2+6ab+b^2 \\
(2a-b)^2 &= 4a^2-4ab+b^2 \\
(4a+5b)^2 &= 16a^2+40ab+25b^2 \\
(4a-3b)^2 &= 16a^2-24ab+9b^2 \\
(a+7b)^2 & \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 &= a^2-10a+25 \\
(3a+b)^2 &= 9a^2+6ab+b^2 \\
(2a-b)^2 &= 4a^2-4ab+b^2 \\
(4a+5b)^2 &= 16a^2+40ab+25b^2 \\
(4a-3b)^2 &= 16a^2-24ab+9b^2 \\
(a+7b)^2 &= a^2+14ab+49b^2 \\
(8a-10b)^2 &
\end{aligned}
$$

Kvadriraj prema formuli

$$
\begin{aligned}
(2+x)^2 &= 4+4x+x^2 \\
(3-x)^2 &= 9-6x+x^2 \\
(12+a)^2 &= 144+24a+a^2 \\
(a-5)^2 &= a^2-10a+25 \\
(3a+b)^2 &= 9a^2+6ab+b^2 \\
(2a-b)^2 &= 4a^2-4ab+b^2 \\
(4a+5b)^2 &= 16a^2+40ab+25b^2 \\
(4a-3b)^2 &= 16a^2-24ab+9b^2 \\
(a+7b)^2 &= a^2+14ab+49b^2 \\
(8a-10b)^2 &= 64a^2-160ab+100b^2
\end{aligned}
$$

Faktoriziraj prema formuli za kvadrat binoma

Faktoriziraj prema formuli za kvadrat binoma

$$a^2 + 4a + 4$$
$$x^2 - 6x + 9$$
$$4a^2 + 4a + 1$$
$$25x^2 - 10x + 1$$
$$4b^2 - 12b + 9$$
$$9a^2 + 30a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^2b^2 + 8abc^2 + 16c^4$$

Faktoriziraj prema formuli za kvadrat binoma

$$a^2 + 4a + 4 = (a+2)^2$$
$$x^2 - 6x + 9$$
$$4a^2 + 4a + 1$$
$$25x^2 - 10x + 1$$
$$4b^2 - 12b + 9$$
$$9a^2 + 30a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^2b^2 + 8abc^2 + 16c^4$$

Faktoriziraj prema formuli za kvadrat binoma

$$a^2 + 4a + 4 = (a+2)^2$$
$$x^2 - 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1$$
$$25x^2 - 10x + 1$$
$$4b^2 - 12b + 9$$
$$9a^2 + 30a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^2b^2 + 8abc^2 + 16c^4$$

Faktoriziraj prema formuli za kvadrat binoma

$$a^2 + 4a + 4 = (a+2)^2$$
$$x^2 - 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1$$
$$4b^2 - 12b + 9$$
$$9a^2 + 30a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^2b^2 + 8abc^2 + 16c^4$$

Faktoriziraj prema formuli za kvadrat binoma

$$
\begin{aligned}
a^2 + 4a + 4 &= (a+2)^2 \\
x^2 - 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 12b + 9 & \\
9a^2 + 30a + 25 & \\
x^2 - 14xy + 49y^2 & \\
16a^2 - 40ab + 25b^2 & \\
64x^2 - 96xy + 36y^2 & \\
a^2b^2 + 8abc^2 + 16c^4 &
\end{aligned}
$$

Faktoriziraj prema formuli za kvadrat binoma

$$
\begin{aligned}
a^2 + 4a + 4 &= (a+2)^2 \\
x^2 - 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 12b + 9 &= (2b-3)^2
\end{aligned}
$$

$$9a^2 + 30a + 25$$

$$x^2 - 14xy + 49y^2$$

$$16a^2 - 40ab + 25b^2$$

$$64x^2 - 96xy + 36y^2$$

$$a^2b^2 + 8abc^2 + 16c^4$$

Faktoriziraj prema formuli za kvadrat binoma

$$
\begin{aligned}
a^2 + 4a + 4 &= (a+2)^2 \\
x^2 - 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 12b + 9 &= (2b-3)^2 \\
9a^2 + 30a + 25 &= (3a+5)^2
\end{aligned}
$$

$$x^2 - 14xy + 49y^2$$

$$16a^2 - 40ab + 25b^2$$

$$64x^2 - 96xy + 36y^2$$

$$a^2b^2 + 8abc^2 + 16c^4$$

Faktoriziraj prema formuli za kvadrat binoma

$$
\begin{aligned}
a^2 + 4a + 4 &= (a+2)^2 \\
x^2 - 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 12b + 9 &= (2b-3)^2 \\
9a^2 + 30a + 25 &= (3a+5)^2 \\
x^2 - 14xy + 49y^2 &= (x-7y)^2 \\
16a^2 - 40ab + 25b^2 & \\
64x^2 - 96xy + 36y^2 & \\
a^2b^2 + 8abc^2 + 16c^4 &
\end{aligned}
$$

Faktoriziraj prema formuli za kvadrat binoma

$$
\begin{aligned}
a^2 + 4a + 4 &= (a+2)^2 \\
x^2 - 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 12b + 9 &= (2b-3)^2 \\
9a^2 + 30a + 25 &= (3a+5)^2 \\
x^2 - 14xy + 49y^2 &= (x-7y)^2 \\
16a^2 - 40ab + 25b^2 &= (4a-5b)^2 \\
64x^2 - 96xy + 36y^2 & \\
a^2b^2 + 8abc^2 + 16c^4 &
\end{aligned}
$$

Faktoriziraj prema formuli za kvadrat binoma

$$
\begin{aligned}
a^2 + 4a + 4 &= (a+2)^2 \\
x^2 - 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 12b + 9 &= (2b-3)^2 \\
9a^2 + 30a + 25 &= (3a+5)^2 \\
x^2 - 14xy + 49y^2 &= (x-7y)^2 \\
16a^2 - 40ab + 25b^2 &= (4a-5b)^2 \\
64x^2 - 96xy + 36y^2 &= (8x-6y)^2 \\
a^2b^2 + 8abc^2 + 16c^4 &
\end{aligned}
$$

Faktoriziraj prema formuli za kvadrat binoma

$$
\begin{aligned}
a^2 + 4a + 4 &= (a+2)^2 \\
x^2 - 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 12b + 9 &= (2b-3)^2 \\
9a^2 + 30a + 25 &= (3a+5)^2 \\
x^2 - 14xy + 49y^2 &= (x-7y)^2 \\
16a^2 - 40ab + 25b^2 &= (4a-5b)^2 \\
64x^2 - 96xy + 36y^2 &= (8x-6y)^2 \\
a^2b^2 + 8abc^2 + 16c^4 &= (ab+4c^2)^2
\end{aligned}
$$

Izdvoji netočne izraz

Izdvoji netočne izraz

$$a^2 + 8a + 4$$
$$x^2 + 6x + 9$$
$$4a^2 + 4a + 1$$
$$25x^2 - 10x + 1$$
$$4b^2 - 24b + 9$$
$$9a^2 + 40a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$
\begin{aligned}
a^2 + 8a + 4 &= (a+2)^2 \\
x^2 + 6x + 9 & \\
4a^2 + 4a + 1 & \\
25x^2 - 10x + 1 & \\
4b^2 - 24b + 9 & \\
9a^2 + 40a + 25 & \\
x^2 - 14xy + 49y^2 & \\
16a^2 - 40ab + 25b^2 & \\
64x^2 - 96xy + 36y^2 & \\
a^3b^2 + 8abc^2 + 16c^4 &
\end{aligned}
$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1$$
$$25x^2 - 10x + 1$$
$$4b^2 - 24b + 9$$
$$9a^2 + 40a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1$$
$$4b^2 - 24b + 9$$
$$9a^2 + 40a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1 = (5x-1)^2$$
$$4b^2 - 24b + 9$$
$$9a^2 + 40a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1 = (5x-1)^2$$
$$4b^2 - 24b + 9 = (2b-3)^2$$
$$9a^2 + 40a + 25$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1 = (5x-1)^2$$
$$4b^2 - 24b + 9 = (2b-3)^2$$
$$9a^2 + 40a + 25 = (3a+5)^2$$
$$x^2 - 14xy + 49y^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1 = (5x-1)^2$$
$$4b^2 - 24b + 9 = (2b-3)^2$$
$$9a^2 + 40a + 25 = (3a+5)^2$$
$$x^2 - 14xy + 49y^2 = (x-7y)^2$$
$$16a^2 - 40ab + 25b^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1 = (5x-1)^2$$
$$4b^2 - 24b + 9 = (2b-3)^2$$
$$9a^2 + 40a + 25 = (3a+5)^2$$
$$x^2 - 14xy + 49y^2 = (x-7y)^2$$
$$16a^2 - 40ab + 25b^2 = (4a+5b)^2$$
$$64x^2 - 96xy + 36y^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$a^2 + 8a + 4 = (a+2)^2$$
$$x^2 + 6x + 9 = (x-3)^2$$
$$4a^2 + 4a + 1 = (2a+1)^2$$
$$25x^2 - 10x + 1 = (5x-1)^2$$
$$4b^2 - 24b + 9 = (2b-3)^2$$
$$9a^2 + 40a + 25 = (3a+5)^2$$
$$x^2 - 14xy + 49y^2 = (x-7y)^2$$
$$16a^2 - 40ab + 25b^2 = (4a+5b)^2$$
$$64x^2 - 96xy + 36y^2 = (8x-8y)^2$$
$$a^3b^2 + 8abc^2 + 16c^4$$

Izdvoji netočne izraz

$$
\begin{aligned}
a^2 + 8a + 4 &= (a+2)^2 \\
x^2 + 6x + 9 &= (x-3)^2 \\
4a^2 + 4a + 1 &= (2a+1)^2 \\
25x^2 - 10x + 1 &= (5x-1)^2 \\
4b^2 - 24b + 9 &= (2b-3)^2 \\
9a^2 + 40a + 25 &= (3a+5)^2 \\
x^2 - 14xy + 49y^2 &= (x-7y)^2 \\
16a^2 - 40ab + 25b^2 &= (4a+5b)^2 \\
64x^2 - 96xy + 36y^2 &= (8x-8y)^2 \\
a^3b^2 + 8abc^2 + 16c^4 &= (ab+4c^2)^2
\end{aligned}
$$