

UTRJEVANJE – izrazi (VAJE 2)

1. Izračunaj.

$$(x + 5)^2 = \underline{\hspace{2cm}} \quad (a - 9)^2 = \underline{\hspace{2cm}}$$

$$(3x - 2)^2 = \underline{\hspace{2cm}}$$

$$\left(-\frac{2}{3}x^2 - 3y\right)^2 = \underline{\hspace{2cm}}$$

$$(5x - 3)(2x + 1) = \underline{\hspace{2cm}}$$

$$(a + 7)(a - 7) = \underline{\hspace{2cm}}$$

$$(2x + 3)(2x - 3) = \underline{\hspace{2cm}}$$

$$(2x - 3y)^2 = \underline{\hspace{2cm}}$$

$$(4x - 5y)(4x + 5y) = \underline{\hspace{2cm}}$$

$$\left(-\frac{4}{5}x - 3\right)\left(-\frac{4}{5}x + 3\right) = \underline{\hspace{2cm}}$$

2. Izpostavi skupni faktor (zapiši kot produkt).

$$3a - 3b = \underline{\hspace{2cm}} \quad 15ac + 12cd = \underline{\hspace{2cm}}$$

$$20xy + 16xyz = \underline{\hspace{2cm}} \quad 18x^2y - 24xy^3 = \underline{\hspace{2cm}}$$

$$7a^5b^4 - 21a^2b^3 = \underline{\hspace{2cm}} \quad x^2 - 25 = \underline{\hspace{2cm}}$$

$$x^2 + 6x + 9 = \underline{\hspace{2cm}} \quad x^2 - 9x + 20 = \underline{\hspace{2cm}}$$

$$x^2 - x - 6 = \underline{\hspace{2cm}} \quad 4x^2 - 12x + 8 = \underline{\hspace{2cm}}$$

3. Razstavi izraz $3a^4 - 48$ (razstavi do konca).

4. Poenostavi izraza.

$$\text{a) } 2(a - 3) + 5(a + 2) = \quad \text{b) } (x + 7)^2 + (x - 3)^2 = \quad \text{c) } (x + 3)(x - 6) - (x - 2)^2 =$$

5. Poenostavi izraz in izračunaj njegovo vrednost za $x = -2$.

$$3(4x - 5)^2 - (7 - x)(7 + x) - (-3x - 4)^2 - (7x - 1)(6x + 8) =$$

ALGEBRSKI ULOMKI 😊

$$\frac{x-1}{x-2}$$

1. Ulomek $\frac{x-1}{x-2}$

a) Določi, **kdaj je definiran** in **kdaj je vrednost ulomka 0**.

b) Razširi na imenovalec $(x-2)(x-3)$.

c) Od danega ulomka odštej $\frac{x^2}{x^2-4}$.

2. Okrajšaj alg. ulomka.

a) $\frac{8a^5}{4a^3}$

b) $\frac{20a^4b^3}{5a^2b^2}$

3. Seštej/odšej.

a) $\frac{x-1}{3} + \frac{2x+1}{6x}$

$$\frac{7x+3}{7} - \frac{x^2-1}{x}$$

4. Izračunaj izraz $\left(\frac{2a}{a-4} - \frac{a^2-a+6}{a^2-2a-8}\right) : \frac{a+6}{a^2+2a}$