

UTRJEVANJE 2

① Izračunaj

a) $1,9^2 = 3,61$ b) $-1,1^2 = -1,21$ c) $(-0,013)^2 = 0,000169$ d) $\frac{3^0}{7} = \frac{1}{7}$
 e) $\sqrt{360000} = 600$ f) $-\sqrt{2,89} = -1,7$ g) $\sqrt{1\frac{5}{16}} = \frac{5}{4} = 1\frac{1}{4}$ h) $-3^{-3} = -\frac{1}{27}$

② Spretno izračunaj

a) $\sqrt{4} \cdot \sqrt{25} = \sqrt{100} = 10$ b) $\sqrt{0,2} \cdot \sqrt{5} = \sqrt{1} = 1$ c) $0,1^{10} \cdot 10^{10} = (10^{-1})^{10} \cdot 10^{10} = 1^{10} = 1$
 d) $\sqrt{\frac{12}{48}} = \sqrt{\frac{1}{4}} = \frac{1}{2}$ e) $\sqrt{500} \cdot \sqrt{50} = \sqrt{25000} = \sqrt{2500 \cdot 10} = 50\sqrt{10}$ f) $\frac{7^4}{14^4} = \left(\frac{1}{2}\right)^4 = \frac{1}{16}$

③ Množi enoclenik z veččlenikom

a) $(x-2) \cdot x^2 = x^3 - 2x^2$ b) $3xy(a-b+1) = 3axy - 3by - 3xy$ c) $-2x(x^2-x) = -2x^3 + 2x^2$
 d) $-a(-a-b+1) = a^2 + ab - a$ e) $(x^2+xy-xy^2) \cdot (-xy) = -x^3y - x^2y^2 + x^2y^3$ f) $(x-y-1) \cdot (-x^2) = -x^3 + x^2y + x^2$

④ Izpostavi skupni faktor (največji!)

a) $7x^2y - 21y^2x = 7xy(x-3y)$ b) $102x^3a^4b^5 - 18x^2a^5b^3 + 21x^5a^3b^2 = 3x^2a^3b^2(34xab^3 - 6a^2b + 7x^3)$
 c) $6x+2-4b = 2(3x+1-2b)$ d) $12a^2b^3c^4 - 24ab^2c^2 + 36a^5b^6c^9 = 12ab^2c^2(abc^2 - 2 + 3a^4b^4c^7)$

⑤ Delno koreni

a) $\sqrt{75} = \sqrt{3 \cdot 25} = 5\sqrt{3}$

b) $\sqrt{242} = \sqrt{2 \cdot 121} = 11\sqrt{2}$

c) $\sqrt{574} = (\text{faktorji: } 1, 2, 7, \dots, 14, 49, 67, 247, 574)$

⑥ Racionaliziraj

a) $\frac{2\sqrt{3} \cdot \sqrt{2}}{\sqrt{2} \cdot \sqrt{2}} = \frac{2\sqrt{6}}{2} = \sqrt{6}$

b) $\frac{4\sqrt{3} \cdot \sqrt{12}}{\sqrt{12} \cdot \sqrt{12}} = \frac{4\sqrt{36}}{12} = \frac{4 \cdot 6}{12} = \frac{24}{12} = 2$