

KVADRIRANJE, KORENJENJE, POTENCIRANJE

1. Izračunaj:

$$17^2 =$$

$$(-15)^2 =$$

$$20^2 =$$

$$1,3^2 =$$

$$1,4^2 =$$

$$0,11^2 =$$

$$\left(\frac{4}{7}\right)^2 =$$

$$(-9000)^2 =$$

$$-2^2 =$$

$$(2\frac{5}{6})^2 =$$

$$0,01^2 =$$

$$\left(-\frac{1}{19}\right)^2 =$$

$$-\left(-\frac{1}{13}\right)^2 =$$

2. Zapiši, med katerima najbližjima naravnima številoma leži kvadratni koren števila.

$\langle \sqrt{15} \langle$

$\langle \sqrt{200} \langle$

$\langle \sqrt{333} \rangle$

3) Izračunaj:

$$\sqrt{196} =$$

$$\sqrt{\frac{1}{4}} =$$

$$\sqrt{0,04} =$$

$$\sqrt{256} =$$

$$\sqrt{\frac{16}{121}} =$$

$$\sqrt{0,0225} =$$

$$\sqrt{0,01} =$$

$$\sqrt{250000} =$$

$$\sqrt{0,0016} =$$

$$\sqrt{400} =$$

$$\sqrt{17\frac{1}{4}} =$$

$$\sqrt{\frac{8}{50}} =$$

$$\sqrt{2500} =$$

*4) Delno koreni:

$$\sqrt{3 \cdot 169} =$$

$$\sqrt{72} =$$

$$\sqrt{500} =$$

$$\sqrt{162} =$$

*5) Racionaliziraj ulomke:

$$\frac{3}{\sqrt{5}} =$$

$$\frac{2}{\sqrt{2}} =$$

$$\frac{2\sqrt{7}}{3\sqrt{2}} =$$

$$\sqrt{\frac{3}{50}} =$$

*6) Najprej delno koreni in nato racionaliziraj ulomek $\frac{4}{3\sqrt{80}}$.

7. Uredi po velikosti. Začni z najmanjšim.

$$-3^2; \quad (-3)^2; \quad 0,3^2; \quad -30^2; \quad 30^2$$

8. Spretno izračunaj.

$$\sqrt{25 \cdot 4} =$$

$$\sqrt{0,1 \cdot 0,4} =$$

$$\sqrt{\frac{27}{3}} =$$

$$\sqrt{55^2} =$$

$$\sqrt{2 \cdot 8} =$$

$$\sqrt{6} \cdot \sqrt{0,24} =$$

$$\frac{\sqrt{324}}{\sqrt{36}} =$$

$$(\sqrt{1,11})^2 =$$

9. a) Zapiši produkt kot potenco!

$$4^4 \cdot 4^2 = \underline{\hspace{2cm}}$$

$$(-5)^2 \cdot (-5)^7 = \underline{\hspace{2cm}}$$

$$a^8 \cdot a^2 = \underline{\hspace{2cm}}$$

$$x^5 \cdot x = \underline{\hspace{2cm}}$$

b) Zapiši s potenco!

$$8^5 : 8 = \underline{\hspace{2cm}}$$

$$(-3)^4 : (-3)^4 = \underline{\hspace{2cm}}$$

$$\frac{3^6}{3^4} = \underline{\hspace{2cm}}$$

$$\frac{1,1^4}{1,1^2} = \underline{\hspace{2cm}}$$

10. **Izračunaj** s pomočjo pravil za potenciranje.

$$a) 5^3 \cdot 2^3 = \underline{\hspace{2cm}}$$

$$b) 20^3 : 4^3 = \underline{\hspace{2cm}}$$

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

$$\frac{12^4}{3^4} = \underline{\hspace{2cm}}$$

$$x^2 \cdot y^2 = \underline{\hspace{2cm}}$$

$$\frac{-20^3}{(-4)^3} = \underline{\hspace{2cm}}$$

11. ***Poenostavi!**

$$x^5 \cdot 2x^3 = \underline{\hspace{2cm}}$$

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