

1. Izračunaj:  $\left(-\frac{3}{4}\right)^2 - \left(\frac{3}{29}\right)^0 + (-1)^3 - \left(-\frac{3}{4}\right)^3 =$

1. Izračunaj, primijenivši pravila za računanje s potencijama:

4.  $[(25^{-1})^0]^2 \cdot 5^{-1} \cdot \left(\frac{1}{125}\right)^2 =$

5.  $a^{-2n+2} b^n \cdot 7a^n b =$

6.  $\frac{1}{6}(x+y)^{-4} : \frac{1}{12}(x+y)^{-4} =$

7.  $6 \cdot 6^{-3m-n} : 2 \cdot 6^{m-n} =$

8.  $\left(\frac{9}{15}\right)^n \cdot 3^n \cdot \left(\frac{5}{3}\right)^n =$

9.  $\left(\frac{4m}{n}\right)^{-2} : \left(\frac{mn}{2}\right)^{-2} =$

10.  $10 \left(\frac{5a-1}{5}\right)^{-n-1} : 5 \left(\frac{5a-1}{5}\right)^{n-1} =$

11.  $\left(-\frac{1}{4}xy^2\right)^2 =$

12.  $\left(-\frac{5}{6}a^5b\right)^3 =$

13.

a)  $100^{-28} \left(\frac{1}{10}\right)^{-28} 3^{-28} =$

b)  $2^1(-2)^3 + 2^0(-2)^4 =$

c)  $\left(\frac{1}{2x^2y}\right)^4 \cdot (4xy^2)^3 =$

d)  $\left(\frac{x^3}{5x^2}\right)^4 \cdot (25xy^3)^3 =$

e)  $a^{11} : a^2 + 3a^3 \cdot 2a^6 - 2a \cdot a^8 =$

f)  $(-3x^2 + x - 2)(-2x + 1) =$

g)  $(a^3 - a^2)(a^6 + 2a^3 - 1) =$

$$h) (3x^3 - 2x^2 + 3)(2x^2 + 1) =$$

$$k) \left(\frac{4b}{c}\right)^{-2a} : \left(\frac{bc}{2}\right)^{-2a} =$$

$$l) \frac{35 a^8 b^{-4}}{77 a^{-5} b^3} =$$

2. Napiši u obliku potencije baze 2 :

$$\frac{48^{-2} \cdot 3^6}{18^2 \cdot 16^{-1}} =$$

$$\frac{1}{32} =$$

$$32^{-1} \left(\frac{1}{8}\right)^2 4^5 =$$

$$6 \cdot 2^6 + 20 \cdot 2^5 =$$

$$10 \cdot 2^{10} + 3 \cdot 4^6 + 20 \cdot 8^3 =$$

$$2. \text{Pojednostavni: } -(5a + b)^3 - 5a + b - 2(5a + b)^3 =$$

3. Napiši znanstveni zapis brojeva: 0,000578 i 64774155000

c) napiši kao racionalne brojeve:  $3,587 \cdot 10^{-4}$  i  $1,00025 \cdot 10^7$

d) Izračunaj:  $(-0,02)^{-3} =$  i e)  $15 \cdot 10^{-2} =$

$$1. \text{ Riješi: a) } (-7^3)^{-4} = \quad \text{b) } (-0,06)^3 =$$

$$2. \text{ Riješi: a) } \left(\frac{x^0}{16x^{-3}}\right)^3 \cdot (-8x^{-6}y^2)^2 =$$

$$b) \left(\frac{x^3}{16y^3x}\right)^2 \cdot (8y^2z)^3 =$$

$$\text{c) } \frac{6 \cdot 6^{-n-1}}{8^{2n-1}} : \frac{3 \cdot 6^{n-1}}{8^{2n}} =$$

$$\text{d) } \left(\frac{52m}{9}\right)^{-4a^2} : \left(\frac{39}{18m}\right)^{-4a^2} =$$

3. Izračunaj:

$$\frac{6^0 - 6^1 + 6^2 - 6^3}{(6^0 : 6^1)(6^2 : 6^3)} =$$

$$\text{b) } (-1)^{11} \cdot 8^2 - \left(\frac{4}{17}\right)^0 \cdot 2^6 =$$