

POTENCA PRODUKTA IN ULOMKA

1. Množi!

$$a^5 \cdot a^3 = a^8 \quad 3x^2 \cdot 2x^3 = 6x^5$$

$$6a^3b^2 \cdot \frac{3}{4}a^2b = \frac{6 \cdot 3}{4} a^{3+2} b^{2+1} = \frac{18}{4} a^5 b^3 = 4\frac{1}{2} a^5 b^3$$

$$0,3z^2y^5 \cdot 2z^3y = 0,6z^{2+3}y^{5+1} = 0,6z^5y^6$$

2. Deli!

$$a^7 : a^5 = a^2 \quad 15x^{10} : 5x^2 = 3x^8$$

$$1\frac{3}{4}x^5y^3 : 1\frac{1}{7}x^2y = \frac{7}{4}x^5y^3 : \frac{8}{7}x^2y = \frac{7 \cdot 7}{4 \cdot 8} x^{5-2} y^{3-1} = \frac{49}{32} x^3 y^2 = 1\frac{17}{32} x^3 y^2$$

3. Potenciraj!

$$a) (ab)^2 = a^2b^2 \quad (-abc)^3 = -a^3b^3c^3$$

$$b) (xy)^3 = x^3y^3 \quad -(abc)^2 = -a^2b^2c^2$$

$$c) \left(\frac{a}{b}\right)^2 = \frac{a^2}{b^2} \quad (-abc)^2 = a^2b^2c^2$$

$$č) \left(\frac{x}{y}\right)^3 = \frac{x^3}{y^3} \quad (-2xy)^4 = 16x^4y^4$$

$$d) \left(\frac{a}{3x}\right)^2 = \frac{a^2}{9x^2} \quad (-3mn)^3 = -27m^3n^3$$

$$e) \left(\frac{b}{2x}\right)^3 = \frac{b^3}{8x^3} \quad \left(-\frac{2xy}{3z}\right)^3 = -\frac{8x^3y^3}{27z^3}$$

*4. Potenciraj!

$$a) (a^2b^3)^2 = a^4b^6 \quad \left(\frac{1}{2}ab^2\right)^3 = \frac{1}{8}a^3b^6$$

$$b) \left(\frac{1}{3}x^2y^3\right)^4 = \frac{1}{81}x^8y^{12} \quad \left(\frac{a^2b^3}{4c^2}\right)^3 = \frac{a^6b^9}{64c^6}$$

$$c) \left(-\frac{a^5b}{c}\right)^2 = \frac{a^{10}b^2}{c^2} \quad \left(-\frac{m^2n^3}{o}\right)^3 = -\frac{m^6n^9}{o^3}$$

*5. Poenostavi!

$$a) \frac{t^3 \cdot t^4}{t^5} = \frac{t^7}{t^5} = t^2 \quad b) \frac{t^{10}}{t \cdot t^{12}} = \frac{t^{10}}{t^{13}} = t^{-3}$$

$$c) \frac{x^3 \cdot y^5}{x^2 \cdot y^6} = x \cdot y^{-1} \quad č) \frac{10x^3 \cdot y^2 \cdot z}{15x^2 \cdot y \cdot z^5} = \frac{2}{3} \cdot x \cdot y \cdot z^{-4}$$

$$d) \frac{21a^2 \cdot b^5 \cdot c}{14a^3 \cdot b^8 \cdot c^5} = \frac{3}{2} a^{-1} b^{-3} c^{-4} \quad e) \frac{(2a^2 \cdot b^3)^2}{10ab^5} = \frac{4a^4b^6}{10ab^5} = \frac{2}{5} a^3b$$