

Mocniny a odmocniny – úprava mocnín

1. Sčítanie a odčítanie :

$$10x^3 + 5x^2 - 3x^3 + x =$$

$$-8y^5 - (3y^4 - y^5) - 5y^4 =$$

2. Násobenie a delenie :

$$x^3 \cdot x^2 \cdot x^4 \cdot x =$$

$$-24x^5y^6 : (-6x^2y^4) =$$

$$-5a^2b \cdot 0,5ba =$$

$$\frac{2}{3}xy^2 \cdot \frac{4}{5}yx^2 =$$

$$-\frac{5}{7}a^4b^6c^2 : \frac{10}{14}ab^5c^2 =$$

3. Umocňovanie :

$$\left(-\frac{1}{2}xy^5\right)^2 =$$

$$(-0,1a^6)^5 =$$

$$\left(\frac{2}{3}m^{84}\right)^3 =$$

4. Upravte :

$$\frac{5^3 \cdot 5^9}{5^7} =$$

$$\frac{2^8 \cdot 2^6}{2^3 \cdot 2} =$$

$$10x^3 + 5x^2 - 3x^3 + x = 7x^3 + 5x^2 + x$$

$$-8y^5 - (3y^4 - y^5) - 5y^4 = -8y^5 - 3y^4 + y^5 - 5y^4 = -7y^5 - 8y^4$$

1. Násobenie a delenie :

$$x^3 \cdot x^2 \cdot x^4 \cdot x = x^{10}$$

$$-24x^5y^6 : (-6x^2y^4) = 4x^3y^2$$

$$-5a^2b \cdot 0,5ba = -2,5a^3b^2$$

$$\frac{2}{3}xy^2 \cdot \frac{4}{5}yx^2 = \frac{8}{15}x^3y^3$$

$$-\frac{5}{7}a^4b^6c^2 : \frac{10}{14}ab^5c^2 = -\frac{5}{7}a^4b^6c^2 \cdot \frac{14}{10}ab^5c^2 = -\frac{70}{70}a^3b^1c^0 = -a^3b$$

2. Umocňovanie :

$$\left(-\frac{1}{2}xy^5\right)^2 = +\frac{1}{4}x^2y^{10}$$

$$(-0,1a^6)^5 = -0,00001a^{30}$$

$$\left(\frac{2}{3}m^{84}\right)^3 = \frac{8}{27}m^{84 \cdot 3} = \frac{8}{27}m^{252}$$

3. Upravte :

$$\frac{5^3 \cdot 5^9}{5^7} = \frac{5^{12}}{5^7} = 5^5$$

$$\frac{2^8 \cdot 2^6}{2^3 \cdot 2} = \frac{2^{14}}{2^4} = 2^{10}$$