

Příklady na procvičení vlastností mocnin

Příklady

$$1. \frac{2^4 \cdot 3^3}{6^2 \cdot 2^{-1}} =$$

$$2. \left(\frac{5^2}{4^3}\right)^{-2} \cdot \left(\frac{4}{5}\right)^4 =$$

$$3. \frac{7^5 \cdot 2^{-3}}{7^3 \cdot 2^4} =$$

$$4. \left(\frac{3}{2}\right)^3 \cdot \left(\frac{2}{3}\right)^{-2} \cdot \left(\frac{4}{9}\right)^0 =$$

$$5. \frac{10^6 \cdot 5^{-4}}{2^6 \cdot 5^2} =$$

$$6. \frac{a^7 \cdot b^{-5}}{a^3 \cdot b^{-2}} \cdot \left(\frac{a}{b}\right)^{-3} =$$

$$7. \left(\frac{x^4}{y^{-2}}\right)^3 \cdot \left(\frac{y^5}{x^6}\right)^{-1} =$$

$$8. \frac{(2a^2b^{-3})^2}{(3a^{-1}b^4)^3} =$$

$$9. \left(\frac{m^5n^{-2}}{m^{-3}n^4}\right)^2 \cdot \left(\frac{n^3}{m^2}\right)^{-3} =$$

$$10. \frac{p^8 \cdot q^{-6}}{p^{-4} \cdot q^5} \cdot \left(\frac{p^2}{q^3}\right)^{-2} =$$

$$11. \frac{(3x^2y^{-1})^3}{(2x^{-3}y^4)^2} =$$

$$12. \left(\frac{4a^5b^{-2}}{3a^{-3}b^6}\right)^2 \cdot \left(\frac{2a^4}{b^3}\right)^{-1} =$$

$$13. \frac{5^3 \cdot c^4 \cdot d^{-2}}{5^2 \cdot c^{-1} \cdot d^5} \cdot \left(\frac{c^2}{d^3}\right)^{-2} =$$

$$14. \left(\frac{7k^6l^{-3}}{2k^{-2}l^4}\right)^{-3} \cdot \left(\frac{4k^5}{l^2}\right)^2 =$$

$$15. \frac{(6m^3n^{-2})^4}{(4m^{-1}n^5)^3} \cdot \left(\frac{3m^2}{n^3}\right)^{-2} =$$

Výsledky

1. 24

2. $\frac{2^{20}}{5^8}$

3. $\frac{49}{128}$

4. $\frac{243}{32}$

5. 1

6. a

7. $x^{18}y$

8. $\frac{4a^7}{27b^{18}}$

9. $\frac{m^{22}}{n^{21}}$

10. $\frac{p^8}{q^5}$

11. $\frac{27x^{12}}{4y^{11}}$

12. $\frac{8a^{12}}{9b^{13}}$

13. $\frac{5c}{d}$

14. $\frac{128 l^{17}}{343 k^{14}}$

15. $\frac{9m^{11}}{4n^{17}}$