Procvičení učiva o mocninách - pracovní list

Použij pravidla o počítání s mocninami:

$a^5 . a^3 = a^8$ **$a^5 : a^3 = a^2$** **$(a^2)^4 = a^8$** **$(\frac{a}{b})^3 = \frac{a^3}{b^3}$** **$(a.b)^5 = a^5 . b^5$**

A

1) $7x^2 + 3x - 6x^3 - 4x =$

$\frac{5}{12}s + \frac{1}{4}s - \frac{2}{3}s =$

$y^4 . y^2 =$

$0{,}2y . 0{,}15y^3 =$

$15a^4 : 5a^2 =$

$s^5 : s^2 =$

$(x^5)^3 =$

$(\frac{2x}{y})^2 =$

$(s^3 . r^3) =$

$m^9 . n^9 =$

B

1) $5r^2 - r^3 - 5r^2 + 2r^3 =$

$\frac{3}{4}a^2 - \frac{1}{2}a^2 + \frac{5}{8}a^2 =$

$x^3 . x^4 =$

$0{,}6p^2 . 1{,}2p^5 =$

$12t^3 : 6t^2 =$

$k^3 : k =$

$(y^4)^3 =$

$(\frac{2}{xy})^2 =$

$(c^4 . d^4) =$

$x^5 . y^5 =$

2) Vypočti :

$2^3 + 3^2 + 2^3 + 3^2 =$

$2^3 . 5^3 =$

$(-3)^3 =$

$\frac{4^5}{4^3} =$

$(1\frac{1}{2})^2 =$

$2^2 + 3^3 + 2^2 + 3^3 =$

$5^4 . 2^4 =$

$(-2)^5 =$

$\frac{5^9}{5^8} =$

$(1\frac{1}{4})^2 =$

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Výsledky

A

1) $7x^2 + 3x - 6x^3 - 4x = -6x^3 + 7x^2 - x$

$\frac{5}{12}s + \frac{1}{4}s - \frac{2}{3}s = 0$

$y^4 \cdot y^2 = y^6$

$0{,}2y \cdot 0{,}15y^3 = 0{,}030y^4$

$15a^4 : 5a^2 = 3a^2$

$s^5 : s^2 = s^3$

$(x^5)^3 = x^{15}$

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

$(s.r)^3 = s^3 \cdot r^3$

$m^9 \cdot n^9 = (m.n)^9$

B

1) $5r^2 - r^3 - 5r^2 + 2r^3 = r^3$

$\frac{3}{4}a^2 - \frac{1}{2}a^2 + \frac{5}{8}a^2 = \frac{7}{8}a^2$

$x^3 \cdot x^4 = x^7$

$0{,}6p^2 \cdot 1{,}2p^5 = 0{,}72p^7$

$12t^3 : 6t^2 = 2t$

$k^3 : k = k^2$

$(y^4)^3 = y^{12}$

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

$(c.d)^4 = c^4 \cdot d^4$

$x^5 \cdot y^5 = (x.y)^5$

2) Vypočti :

$2^3 + 3^2 + 2^3 + 3^2 = 2.8 + 2.9 = 34$

$2^3 \cdot 5^3 = (2.5)^3 = 1000$

$(-3)^3 = -27$

$\frac{4^5}{4^3} = 4^2 = 16$

$(1\frac{1}{2})^2 = \frac{9}{4}$

$2^2 + 3^3 + 2^2 + 3^3 = 2.4 + 2.27 = 62$

$5^4 \cdot 2^4 = (5.2)^4 = 10000$

$(-2)^5 = -32$

$\frac{5^9}{5^8} = 5$

$(1\frac{1}{4})^2 = \frac{25}{16}$