

Potenzen Aufgabe 33

$$\left(\frac{u^3 * v^5}{x^4 * y^6}\right)^9 * \left(\frac{u^2 * v^3}{x^3 * y^5}\right)^9 : \left(\frac{x^4 * y^7}{u^6 * y^{10}}\right)^9 =$$

$$\left(\frac{u^3 * v^5 * u^2 * v^3 * u^6 * y^{10}}{x^4 * y^6 * x^3 * y^5 * x^4 * y^7}\right)^9 = \left(\frac{u^{3+2+6} * v^{5+3} * y^{10}}{x^{4+3+4} * y^{6+5+7}}\right)^9 =$$

$$= \left(\frac{u^{11} * v^8 * y^{10}}{x^{11} * y^{18}}\right)^9 = \left(\frac{u}{x}\right)^{99} * \left(\frac{v}{y}\right)^{72}$$