

$$\begin{aligned}
x^4 + xy(x^2 + y^2) + y^4 &= x^4 + y^4 - 2x^2y^2 + xy(x^2 + y^2 + 2xy) = \\
&= (x^2 - y^2)^2 + xy(x + y)^2 = (x + y)^2[(x - y)^2 + xy] = (x + y)^2(x^2 - xy + y^2). \\
x^4 + x^2y^2 + y^2 &= x^4 + 2x^2y^2 + y^4 - x^2y^2 = \\
&= (x^2 + y^2)^2 - x^2y^2 = (x^2 + y^2 + xy)(x^2 + y^2 - xy),
\end{aligned}$$

tehát

$$\frac{x^4 + xy(x^2 + y^2) + y^4}{x^4 + x^2y^2 + y^4} = \frac{(x + y)^2}{x^2 + xy + y^2}.$$

Molnár Sándor, Szegárd.)

Megoldások száma: 32.