

$$\begin{aligned}
1^\circ. \quad & \frac{1}{x_1} + \frac{1}{x_2} = \frac{x_1 + x_2}{x_1 x_2} = \frac{-p}{q}. \\
2^\circ. \quad & \frac{1}{x_1^2} + \frac{1}{x_2^2} = \frac{x_1^2 + x_2^2}{x_1^2 x_2^2} = \frac{(x_1 + x_2)^2 - 2x_1 x_2}{x_1 x_2} = \frac{p^2 - 2q}{q^2}. \\
3^\circ. \quad & \frac{1}{x_1^3} + \frac{1}{x_2^3} = \frac{x_1^3 + x_2^3}{x_1^3 x_2^3} = \frac{(x_1 + x_2)^3 - 3x_1^2 x_2 - 3x_1 x_2^2}{x_1^3 x_2^3} = \\
& = \frac{(x_1 + x_2)^3 - 3x_1 x_2 (x_1 + x_2)}{x_1^3 x_2^3} = \frac{-p^3 + 3pq}{q^3} = \frac{p}{q^3} (3q - p^2).
\end{aligned}$$

(Füstös Pál, Eger.)

Megoldások száma: 23.