

Mutassuk meg, hogy

$$\frac{p^2}{a^2} + \frac{q^2}{b^2} + \frac{r^2}{c^2} = \frac{p^2 + q^2 + r^2}{x^2 + y^2 + z^2},$$

ha

$$\frac{p}{x} = \frac{q}{y} = \frac{r}{z} \quad \text{és} \quad \frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1.$$