

③

$$\frac{x-1}{x} + \frac{3x}{x^2-1}$$

Να λύσεις την πρόβλημα

Λύση

$$\frac{x-1}{x} + \frac{3x}{x^2-1}$$

$$\frac{x-1}{x} + \frac{3x}{(x-1)(x+1)}$$

$$\in \mathbb{K} : x(x-1)(x+1)$$

$$\frac{\overbrace{(x-1)(x+1)}^{x-1}}{x} + \frac{\overbrace{x}^x}{(x-1)(x+1)}$$

$$= \frac{(x-1)^2(x+1)}{x(x-1)(x+1)} + \frac{3x^2}{x(x-1)(x+1)}$$

$$= \frac{(x-1)^2(x+1) + 3x^2}{x(x-1)(x+1)}$$