

# ÁLGEBRA<sup>4ºESO</sup>

## 1. Simplifica

$$\frac{x^2 + 2ax + a^2}{mx + ma}$$

$$\frac{x^3 - 3x^2y + 3xy^2 - y^3}{x^2 - y^2}$$

$$\frac{25\sqrt[3]{xy^2}}{125xy\sqrt{x}}$$

$$(Rta: \frac{x+a}{m}; \frac{(x-y)^2}{x+y}; \frac{1}{5\sqrt[6]{x^7y^2}})$$

## 2. Opera y simplifica

$$\left(\frac{1}{x^3} - \frac{1}{x^2} + \frac{1}{x}\right)(x^4 + x^3); \left(\frac{x-y}{x+y} + \frac{x+y}{x-y}\right)\left(\frac{x^2+y^2}{2xy} + 1\right)\frac{xy}{x^2+y^2}; \left(x + \frac{x}{x-1}\right) : \left(x - \frac{x}{x-1}\right)$$

$$(Rta. \quad x^3 + 1; \frac{x+y}{x-y}; \frac{x}{x-2})$$

## 3. Opera y simplifica

$$\frac{x}{x^2-2x} + \frac{x+2}{x^2-4} - \frac{x-2}{2x-4};$$

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

$$(Rta. \frac{6-x}{2x-4}; \frac{2x^4-x^2-x-1}{x^3+x^2})$$

## 4. Resuelve:

$$\sqrt{2x-1} + \sqrt{x+4} = 6; \quad x^4 - 13x^2 + 36 = 0$$

$$(Rta. x=5; x=-3 y +-2)$$