

# Scomposizione di funzioni razionali

## Periodo 2 - UdA 7

Scomporre le seguenti frazioni algebriche

$$[1] \quad \frac{4x^2 - 12x + 8}{3x^4 - 27x^2}$$

$$[2] \quad \frac{-9x^2 + 16}{-9x^3 - 16x}$$

$$[3] \quad \frac{-3x^2}{-x^4 + 8x^2 + 9}$$

$$[4] \quad \frac{16x^4 + 1}{-2x^5 + 12x^4 - 18x^3}$$

$$[5] \quad \frac{-25x^3 + 4x}{-2x^2 - 14x - 20}$$

$$[6] \quad \frac{-x^2 + 8x - 16}{8x^3 - 2x^2}$$

$$[7] \quad \frac{x^2 + x - 6}{-3x^3 - 2x^2}$$

$$[8] \quad \frac{6x^3 + 6x^2 - 12x}{-5x^2 + 20x - 20}$$

$$[9] \quad \frac{-2x^3 - 12x^2 - 18x}{3x^2 - 12x + 9}$$

$$[10] \quad \frac{9x^4 + 12x^3}{-x^2 + x + 12}$$

$$[11] \quad \frac{-x^8 - 2x^4 - 1}{2x^3}$$

$$[12] \quad \frac{-5x^2 - 10x}{48x^4 - 3}$$

# SOLUZIONI

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$$[1] \quad \frac{4(x-2)(x-1)}{3x^2(x-3)(x+3)}$$

$$[2] \quad \frac{(3x-4)(3x+4)}{x(9x^2+16)}$$

$$[3] \quad \frac{3x^2}{(x^2+1)(x-3)(x+3)}$$

$$[4] \quad -\frac{(16x^4+1)}{2x^3(x-3)^2}$$

$$[5] \quad \frac{x(5x-2)(5x+2)}{2(x+5)(x+2)}$$

$$[6] \quad -\frac{(x-4)^2}{2x^2(4x-1)}$$

$$[7] \quad -\frac{(x+3)(x-2)}{x^2(3x+2)}$$

$$[8] \quad -\frac{6x(x+2)(x-1)}{5(x-2)^2}$$

$$[9] \quad -\frac{2x(x+3)^2}{3(x-3)(x-1)}$$

$$[10] \quad -\frac{3x^3(3x+4)}{(x-4)(x+3)}$$

$$[11] \quad -\frac{(x^4+1)^2}{2x^3}$$

$$[12] \quad -\frac{5x(x+2)}{3(2x-1)(2x+1)(4x^2+1)}$$