

ESPRESSIONI VARIE CON MONOMI - CORREZIONI

$$2) \quad (x^2 - 4x - 2x \cdot x + x^2)^2 - (4x)^2 = (\cancel{x^2} - 4x - \cancel{2x^2} + \cancel{x^2})^2 - 16x^2 = 16x^2 - 16x^2 = 0$$

$$15) \quad \left[\left(y^2 + \frac{1}{4}y^2 \right) \left(y - \frac{1}{5}y \right) + y^3 \right]^2 - 3y^6 =$$

$$= \left[\left(1 + \frac{1}{4} \right) y^2 \cdot \left(1 - \frac{1}{5} \right) y + y^3 \right]^2 - 3y^6 = \left(\frac{4+1}{4} y^2 \cdot \frac{5-1}{5} y + y^3 \right)^2 - 3y^6 =$$

$$= \left(\frac{\cancel{4}}{\cancel{4}} y^2 \cdot \frac{\cancel{4}}{\cancel{5}} y + y^3 \right)^2 - 3y^6 = (y^3 + y^3)^2 - 3y^6 = (2y^3)^2 - 3y^6 = 4y^6 - 3y^6 = y^6$$

$$16) \quad \left[\left(\frac{1}{8}n - \frac{1}{4}n + \frac{1}{2}n \right) \cdot \frac{4}{3}n \right]^2 : [(-n)^4 + n^4 + 2n^4] - \left(-\frac{1}{2} \right)^4 =$$

$$= \left[\left(\frac{1}{8} - \frac{1}{4} + \frac{1}{2} \right) n \cdot \frac{4}{3}n \right]^2 : [n^4 + n^4 + 2n^4] - \frac{1}{16} =$$

$$= \left[\frac{1-2+4}{8} n \cdot \frac{4}{3}n \right]^2 : (4n^4) - \frac{1}{16} = \left(\frac{\cancel{4}}{\cancel{8}2} n \cdot \frac{\cancel{4}}{\cancel{3}} n \right)^2 : (4n^4) - \frac{1}{16} =$$

$$= \left(\frac{1}{2}n^2 \right)^2 : (4n^4) - \frac{1}{16} = \frac{1}{4}n^4 \cdot \frac{1}{4}n^{-4} - \frac{1}{16} = \frac{1}{16} - \frac{1}{16} = 0$$

$$18) \quad \left\{ \left[-c^2 \cdot (-c)^2 + c \cdot (-c)^3 - c^4 + (-2c^2)^2 \right] : c + (2c)^3 \right\} : c - (3c)^2 =$$

$$= \left\{ \left[-c^2 \cdot c^2 + c \cdot (-c^3) - c^4 + 4c^4 \right] : c + 8c^3 \right\} : c - 9c^2 = \left\{ \left[-c^4 - c^4 - c^4 + 4c^4 \right] : c + 8c^3 \right\} : c - 9c^2 =$$

$$= \left(+c^4 : c + 8c^3 \right) : c - 9c^2 = (c^3 + 8c^3) : c - 9c^2 = 9c^3 : c - 9c^2 = 9c^2 - 9c^2 = 0$$

$$32) \quad \left[\left(x^{-2} - \cancel{3x^3} + x^{-2} + \cancel{x^3} + \cancel{2x^3} \right)^{-2} + \frac{1}{2}x \cdot \frac{3}{2}x \cdot (-x)^2 \right] : (-x) - (-x)^3 =$$

$$= \left[\left(2x^{-2} \right)^{-2} + \frac{1}{2}x \cdot \frac{3}{2}x \cdot x^2 \right] : (-x) - (-x^3) = \left[\frac{1}{4}x^4 + \frac{3}{4}x^4 \right] : (-x) + x^3 = \frac{\cancel{4}}{\cancel{4}}x^4 : (-x) + x^3 = -x^3 + x^3 = 0$$

$$33) \quad \left[(-2x^2)^{-5} (4x^3)^2 - \frac{3}{2}x^2 : x^6 + \frac{3}{x^4} \right]^{-2} = \left[-\frac{1}{\cancel{32}2} x^{-10} \cdot \cancel{16}x^6 - \frac{3}{2}x^{-4} + 3x^{-4} \right]^{-2} =$$

$$= \left(-\frac{1}{2}x^{-4} - \frac{3}{2}x^{-4} + 3x^{-4} \right)^{-2} = \left(\frac{-1-3+6}{2}x^{-4} \right)^{-2} = \left(\frac{\cancel{2}}{\cancel{2}}x^{-4} \right)^{-2} = x^8$$