

## SOMMA PER DIFFERENZA

- $(3a - 2b)(3a + 2b) = 9a^2 - 4b^2$
- $(\frac{4}{3}ab^2 - 5c^3)(\frac{4}{3}ab^2 + 5c^3) = \frac{16}{9}a^2b^4 - 25c^6$
- $(\frac{1}{2}x + \frac{7}{3}y^2)(\frac{1}{2}x - \frac{7}{3}y^2) = \frac{1}{4}x^2 - \frac{49}{9}y^4$
- $(3abc^2 + 3)(3abc^2 - 3) = 9a^2b^2c^4 - 9$

## QUADRATO DI BINOMIO $[(a+b)^2 = a^2 + b^2 + 2ab]$

- $(5a + 2b)^2 = (5a)^2 + (2b)^2 + 2 \cdot (5a) \cdot (2b) = 25a^2 + 4b^2 + 20ab$
- $(3xy^2 - x^2)^2 = (3xy^2)^2 + (-x^2)^2 + 2(3xy^2)(-x^2) = 9x^2y^4 + x^4 - 6x^3y^2$
- $(2a^2b - \frac{1}{2}ab^2)^2 = (2a^2b)^2 + (-\frac{1}{2}ab^2)^2 + 2 \cdot (2a^2b)(-\frac{1}{2}ab^2) = 4a^4b^2 + \frac{1}{4}a^2b^4 - 2a^3b^3$
- $(-\frac{2}{3}m^2 - \frac{1}{2}mm^2)^2 = (-\frac{2}{3}m^2)^2 + (-\frac{1}{2}mm^2)^2 + 2 \cdot (-\frac{2}{3}m^2)(-\frac{1}{2}mm^2) = \frac{4}{9}m^4 + \frac{1}{4}m^2m^4 + \frac{2}{3}m^3m^2$

## MONOMI E

- $(-x^3y^2 + x^4) + (-3x^4 - y^2) - (2x^3y^2 - 2y^2 - x^4) = -x^3y^2 + x^4 - 3x^4 - y^2 - 2x^3y^2 + 2y^2 + x^4 = x^4 + x^4 - 3x^4 - x^3y^2 - 2x^3y^2 + 2y^2 - y^2 = -x^4 - 3x^3y^2 + y^2$
- $(\frac{8}{13}a^2b)(4b^2 - \frac{1}{2}b^2 - \frac{1}{4}b^2)(\frac{1}{3}abc + 3abc + \frac{1}{6}abc) = (\frac{8}{13}a^2b^3 - \frac{4}{13}a^2b^3 - \frac{2}{13}a^2b^3)(\frac{2+18+1}{6}abc) = (\frac{26-4-2}{13}a^2b^3)(\frac{21}{6}abc) = \frac{20}{13}a^2b^3 \cdot \frac{7}{2}abc = \frac{70}{13}a^3b^4c$
- $-x(x+y) - y(x+1) - 2y(-y-x-1) = -x^2 - xy - xy - y + 2y^2 + 2xy + 2y = -x^2 + 2y^2 + 2y - y = 2y^2 - x^2 + y$
- $(-\frac{15}{8}bc + \frac{3}{4}bc - \frac{7}{8}bc)(-\frac{2}{3}ab + \frac{1}{3}ab + \frac{4}{3}ab) = (\frac{-15+6-7}{8}bc)(\frac{-2+1+4}{3}ab) = (-\frac{16}{8}bc)(\frac{3}{3}ab) = -2ab^2c$