

Studia in modo completo le seguenti funzioni:

$$11) y = \frac{x^2 + 7}{3 - x} \quad M(7; -14) \quad m(-1; 2)$$

$$12) y = \frac{x^3 - 4x}{2x^2 + 2} \quad M(\sim -0,73; \sim 0,82) \quad m(\sim 0,73; \sim -0,82)$$

$$F_1(0; 0) \quad F_2(-\sqrt{3}; \frac{\sqrt{3}}{8}) \quad F_3(\sqrt{3}; -\frac{\sqrt{3}}{8})$$

$$13) y = 2x^2 - x - x^3 + 1 \quad M(1; 1) \quad m\left(\frac{1}{3}; \frac{23}{27}\right) \quad F\left(\frac{2}{3}; \frac{25}{27}\right)$$

$$14) y = x^4 - 15x^2 - 2x^3 \quad m_1(\sim -2,09; \sim -28,18) \quad m_2(\sim 3,59; \sim -119,75) \quad M(0; 0)$$

$$F_1(\sim -1,16; \sim -15,25) \quad F_2(\sim 2,16; \sim -68,37)$$

$$15) y = \frac{5x + 1}{3x - x^2} \quad \text{senza derivata seconda} \quad M(-1; 1) \quad m\left(\frac{3}{5}; \frac{25}{9}\right)$$

$$16) y = \frac{6 - 3x^2}{x^2 + 4x + 4} \quad M(-1; 3) \quad F\left(-\frac{1}{2}; \frac{7}{3}\right)$$

$$\text{tangente inflessionale } y = -\frac{16}{9}x + \frac{13}{9}$$

$$17) y = \frac{4x^2 - x^4}{x^3 - 4x^2 + 5x - 2} \quad \text{D.E. } (2; -16) \quad m\left(-1; -\frac{1}{4}\right) \quad M_1(0; 0) \quad M_2\left(4; -\frac{32}{3}\right)$$

$$F\left(-\frac{2}{7}; -\frac{16}{189}\right) \quad \text{tangente inflessionale } y = \frac{100}{243}x + \frac{8}{243}$$

