

STUDIO DI FUNZIONI

Studiare le seguenti funzioni:

$$1) f(x) = \frac{1}{x-x^2}$$

$$12) f(x) = \frac{x-2}{2} e^{\frac{2}{x}}$$

$$2) f(x) = \frac{x^2 + x + 1}{x+4}$$

$$13) f(x) = \frac{\log x}{2 - \log x}$$

$$3) f(x) = \frac{x^2 - 2x}{e^x}$$

$$14) f(x) = \sqrt{x} \cdot \log^2 x$$

$$4) f(x) = \log\left(\frac{x}{x-1}\right)$$

$$15) f(x) = \arcsin\left(\frac{1-x^2}{1+x^2}\right)$$

$$5) f(x) = \frac{|x-1|}{x+1}$$

$$6) f(x) = \log(e^x - e^{-x})$$

$$7) f(x) = \arctan\left(\frac{1}{x-1}\right)$$

$$8) f(x) = e^{\frac{1}{x-1}}$$

$$9) f(x) = \sqrt{\frac{x-1}{x+1}}$$

$$10) f(x) = \log \frac{x}{|x-3|}$$

$$11) f(x) = \frac{\log^2 |x|}{x}$$