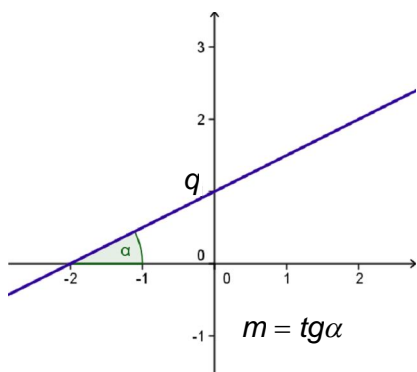


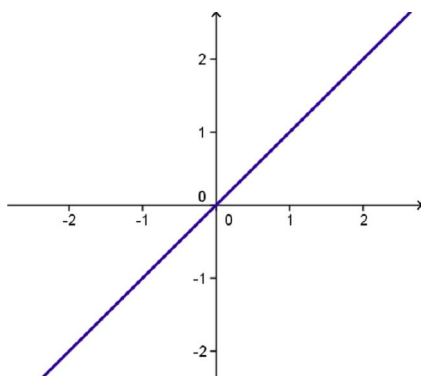
Grafici delle funzioni elementari

La retta

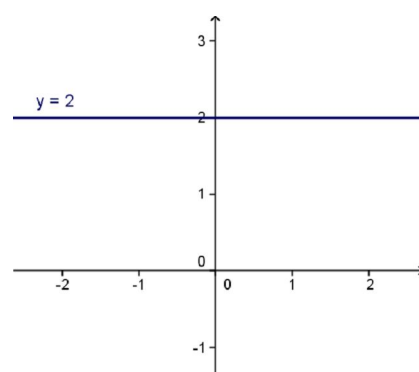
$$y = m x + q$$



$$y = m x$$



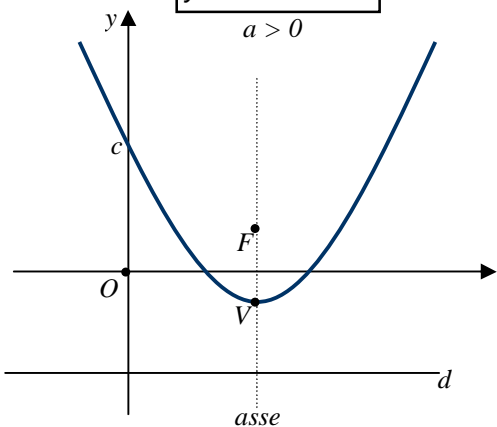
$$y = q$$



La parabola (asse parallelo all'asse y)

$$y = ax^2 + bx + c$$

$a > 0$



$$V\left(-\frac{b}{2a}; -\frac{\Delta}{4a}\right)$$

$$F\left(-\frac{b}{2a}; \frac{1-\Delta}{4a}\right)$$

direttrice

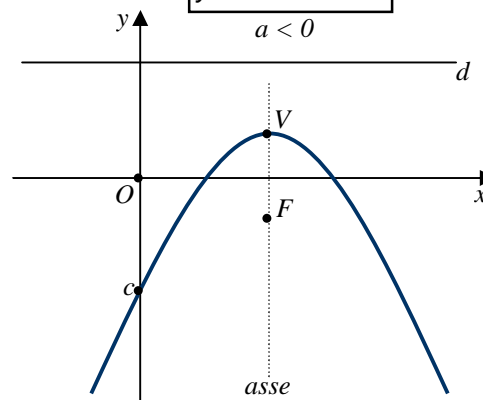
$$y = -\frac{1+\Delta}{4a}$$

asse

$$x = -\frac{b}{2a}$$

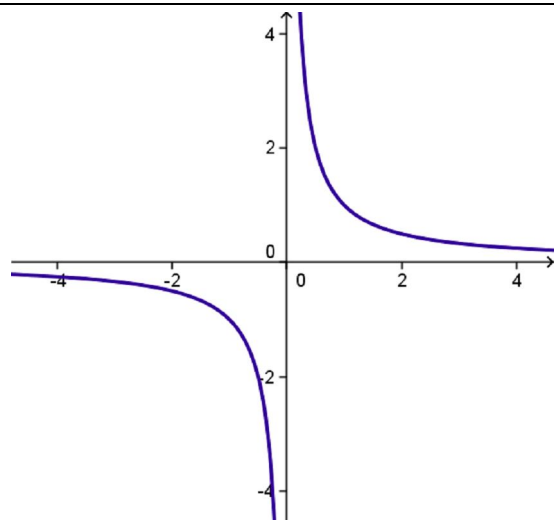
$$y = ax^2 + bx + c$$

$a < 0$

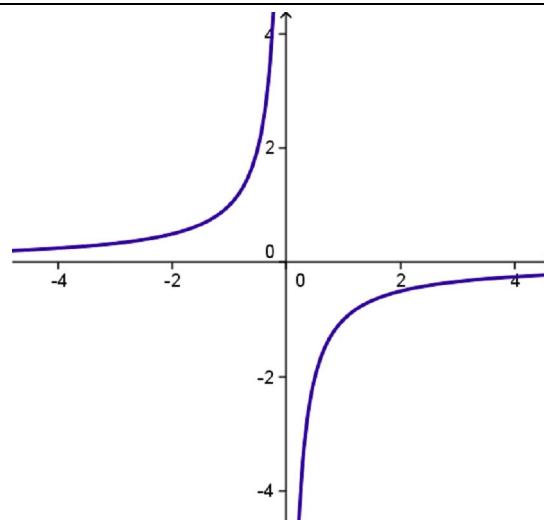


La funzione di proporzionalità inversa $y = \frac{k}{x}$

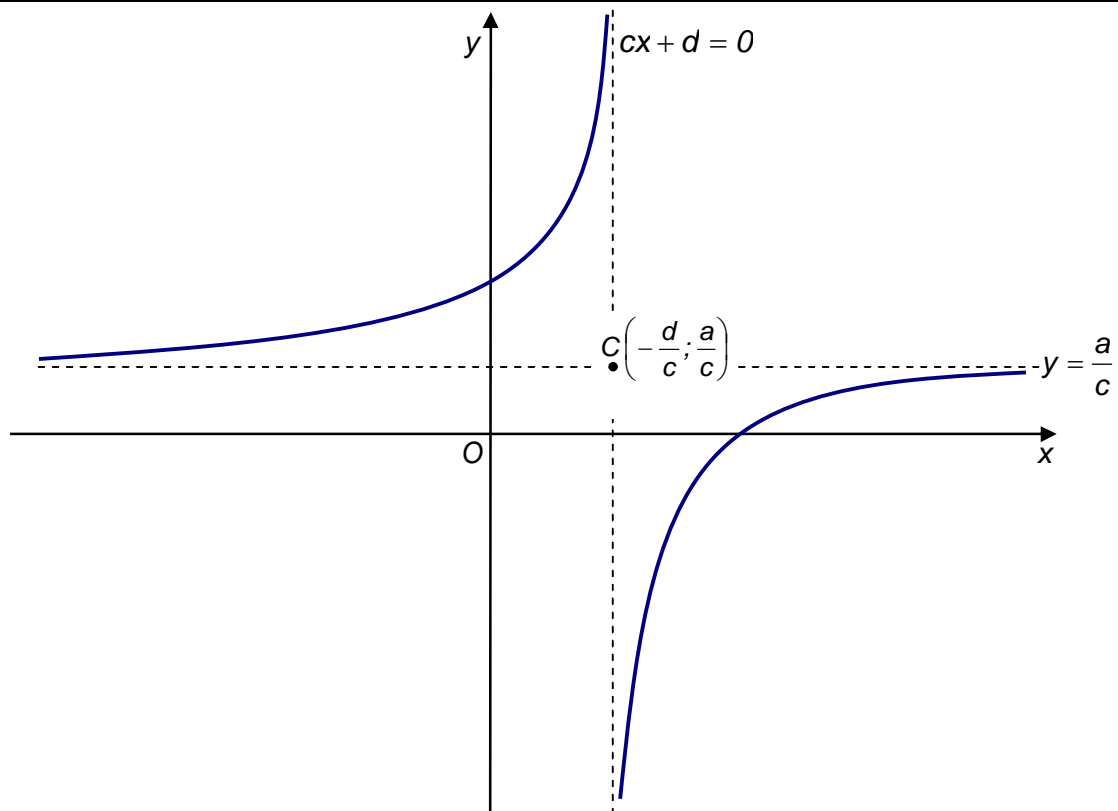
$$k > 0$$



$$k < 0$$

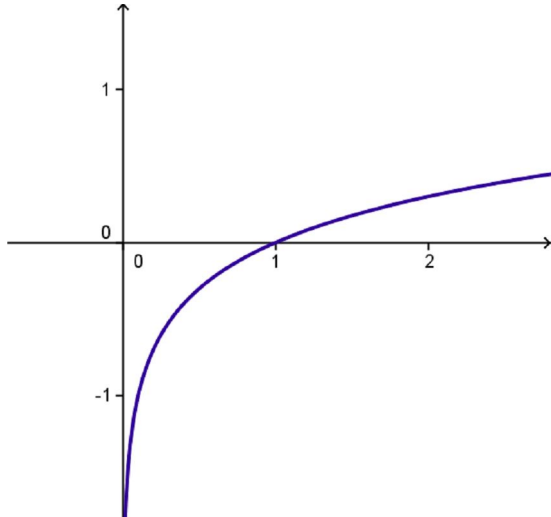


La funzione omografica $y = \frac{ax+b}{cx+d}$ con $c \neq 0$ e $ad \neq bc$

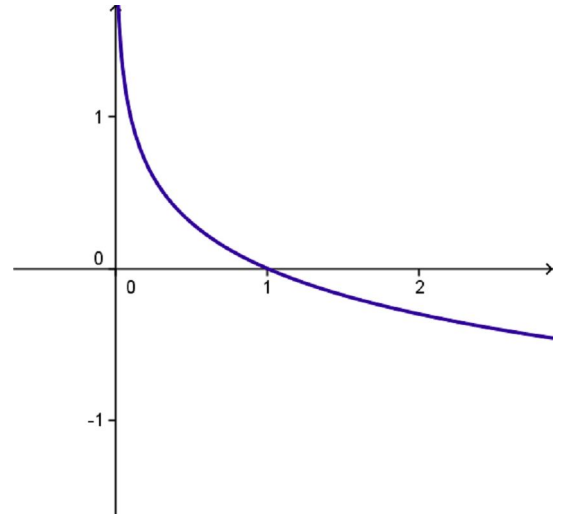


La funzione logaritmica $y = \log_a x$

$a > 1$

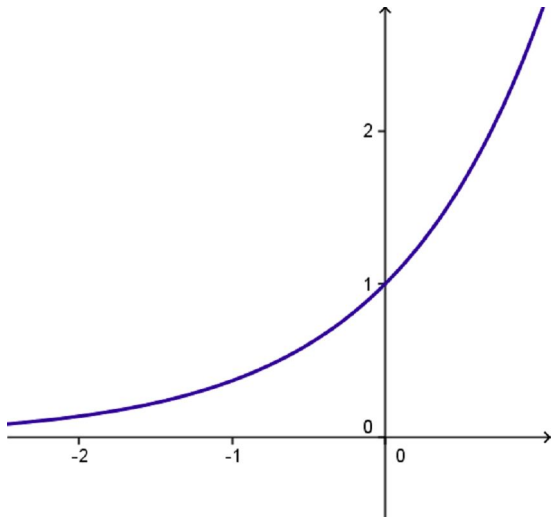


$0 < a < 1$

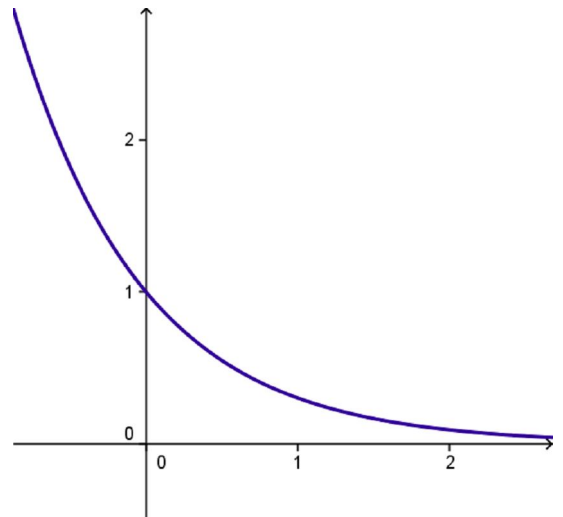


La funzione esponenziale $y = a^x$

$a > 1$

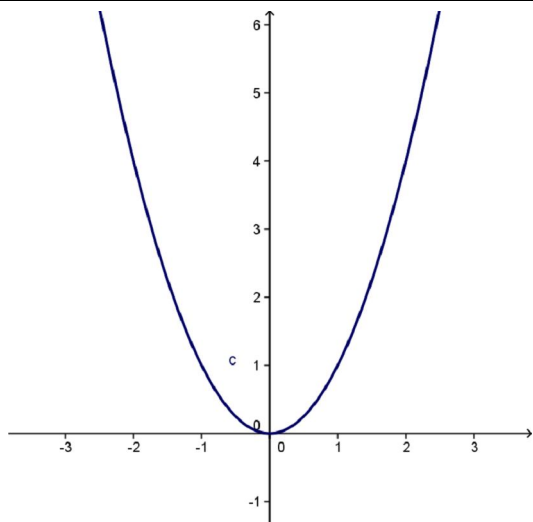


$0 < a < 1$

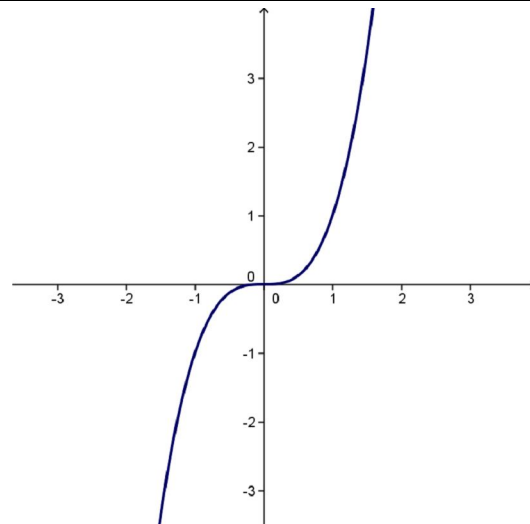


La funzione potenza $y = x^n$

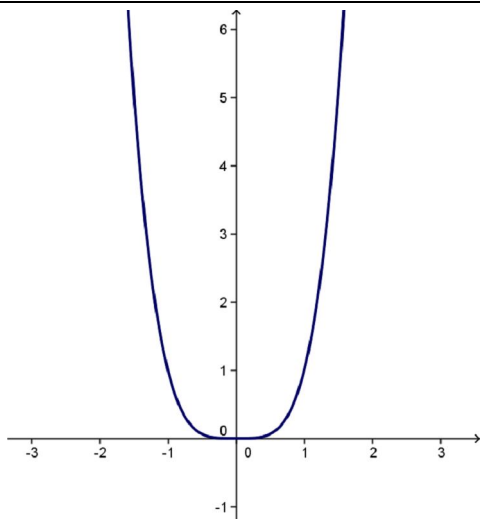
$y = x^2$



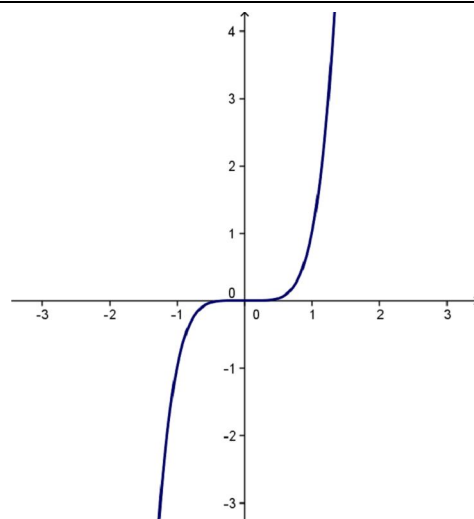
$y = x^3$



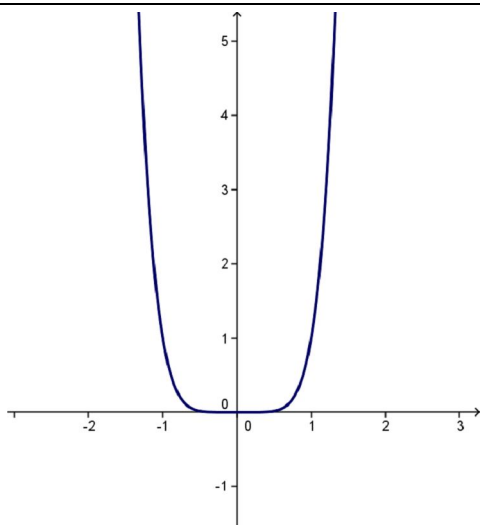
$y = x^4$



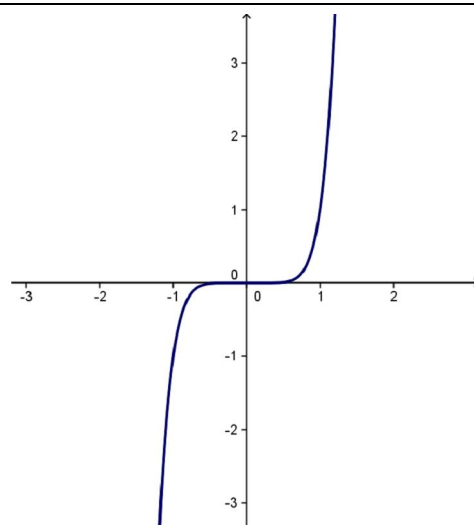
$y = x^5$



$y = x^n$ pari

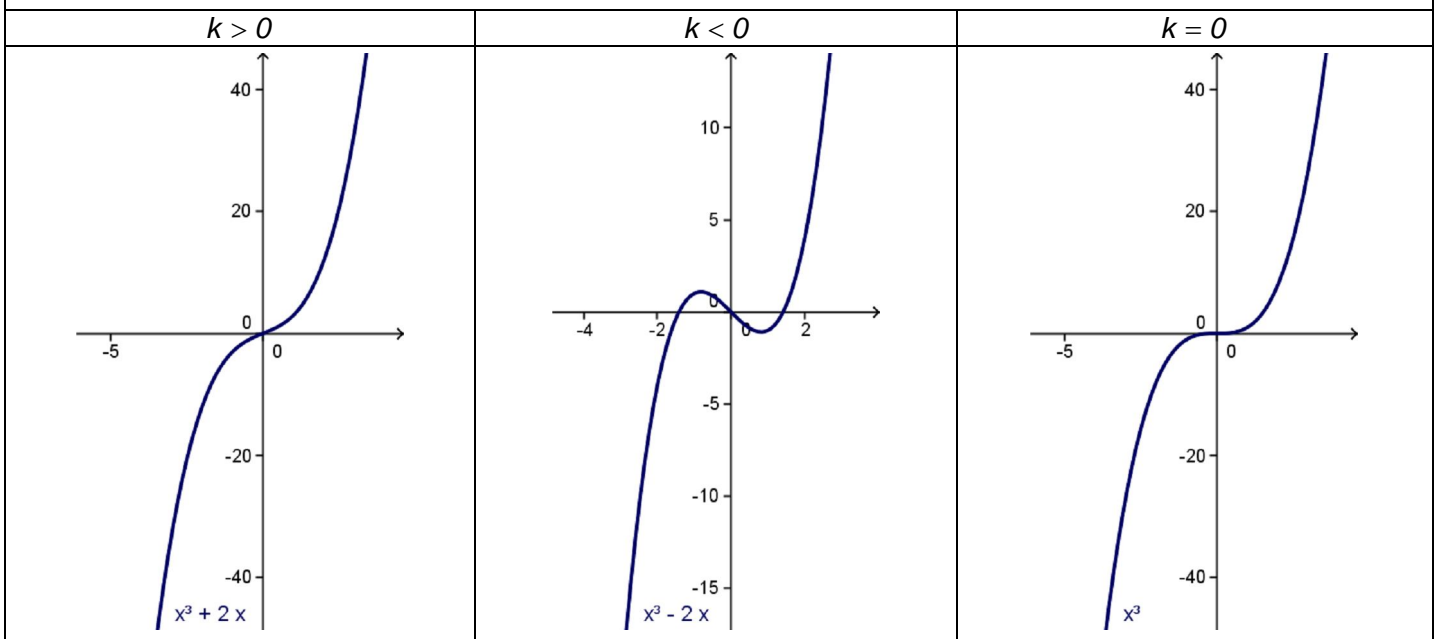


$y = x^n$ dispari

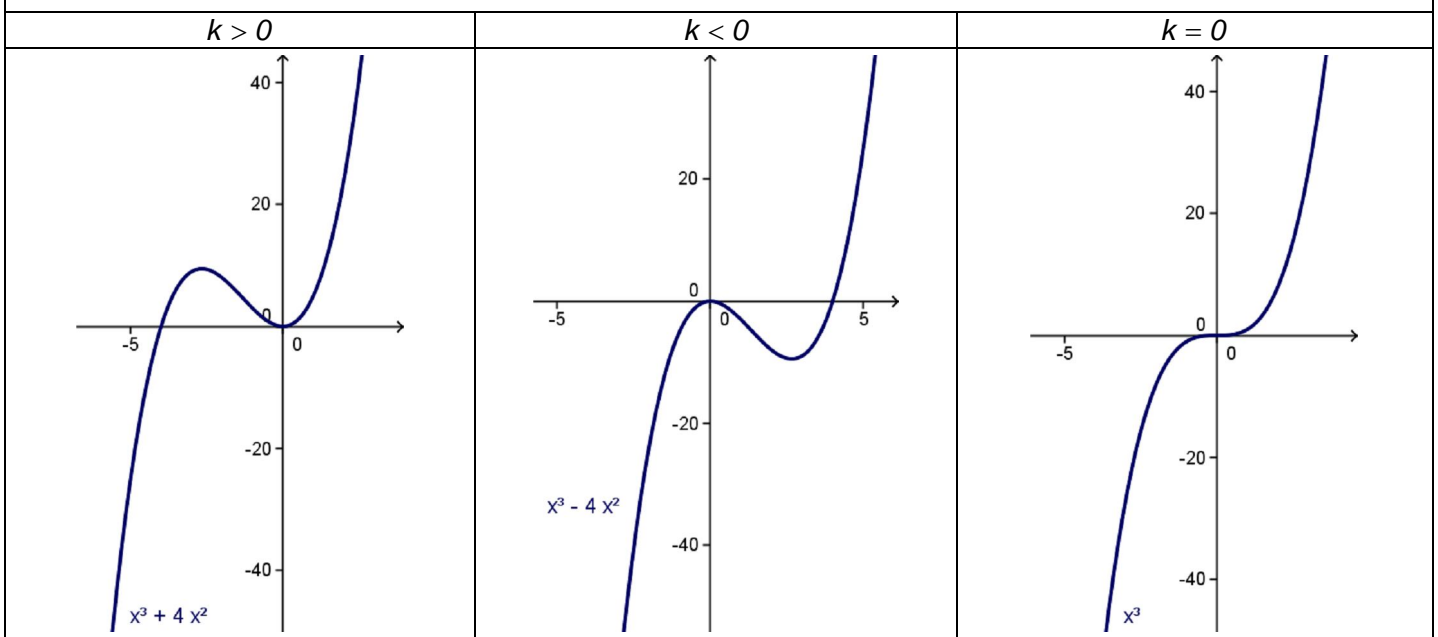


Al crescere dell'esponente la curva si schiaccia maggiormente nell'origine.

La funzione polinomiale $f(x) = x^3 + kx$

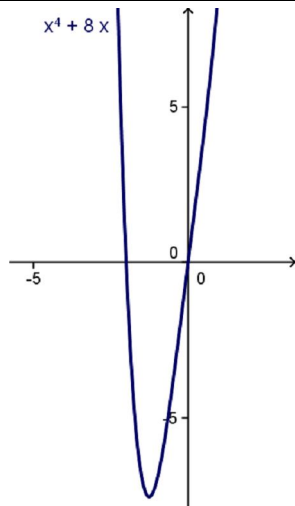


La funzione polinomiale $f(x) = x^3 + kx^2$

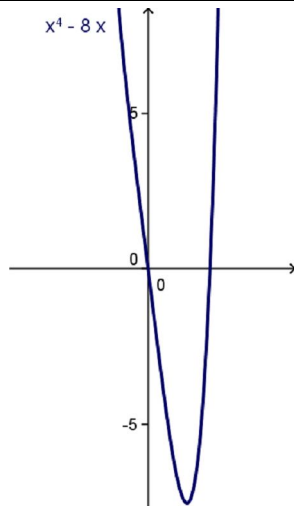


La funzione polinomiale $f(x) = x^4 + kx$

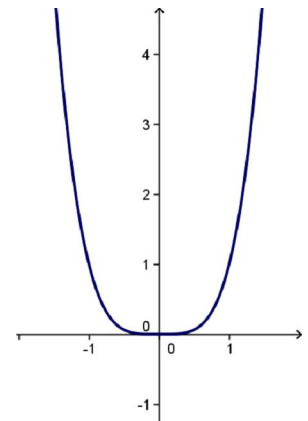
$k > 0$



$k < 0$

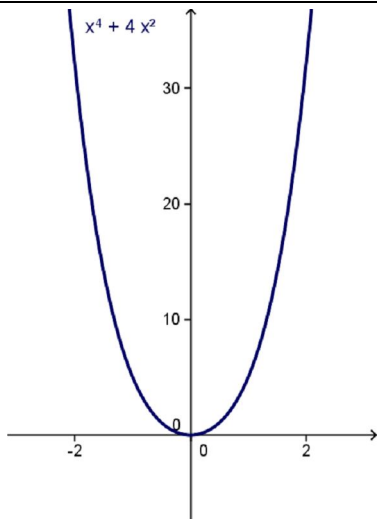


$k = 0$

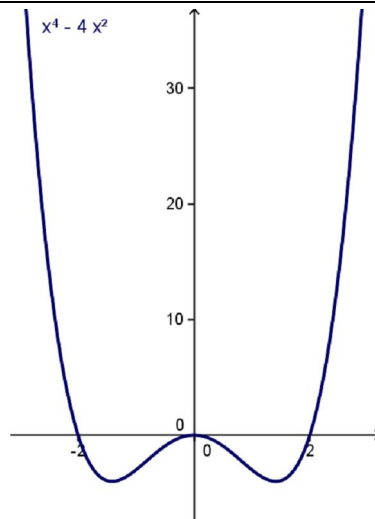


La funzione polinomiale $f(x) = x^4 + kx^2$

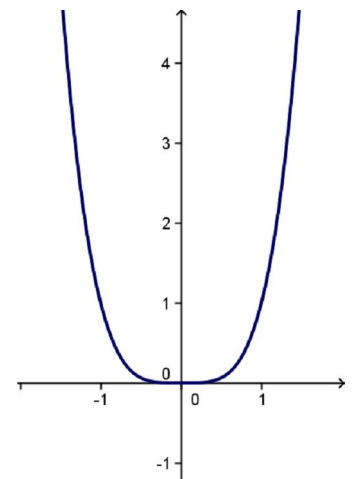
$k > 0$



$k < 0$

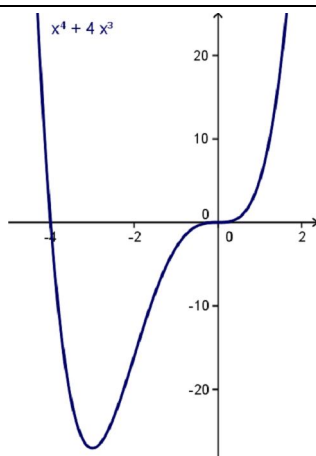


$k = 0$

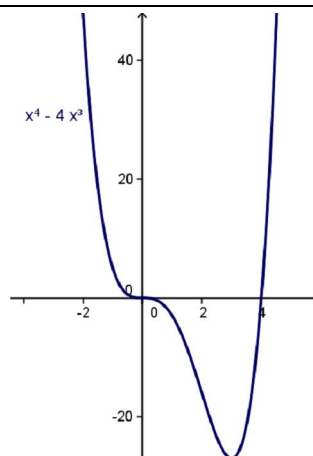


La funzione polinomiale $f(x) = x^4 + kx^3$

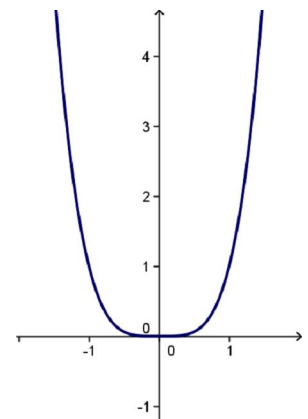
$k > 0$



$k < 0$

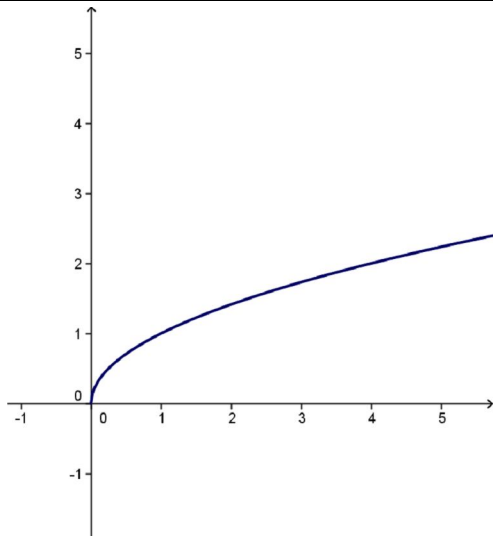


$k = 0$

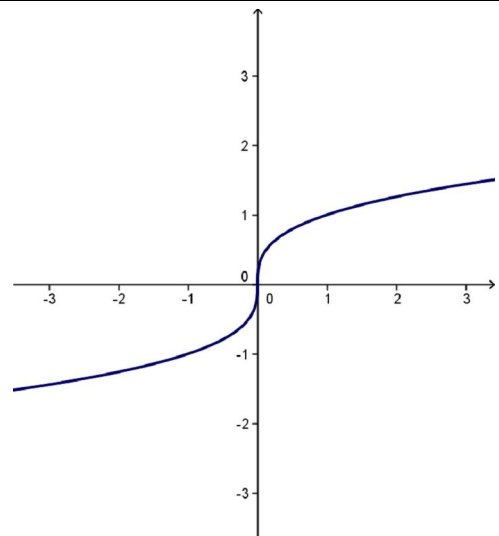


La funzione irrazionale $y = \sqrt[n]{x}$

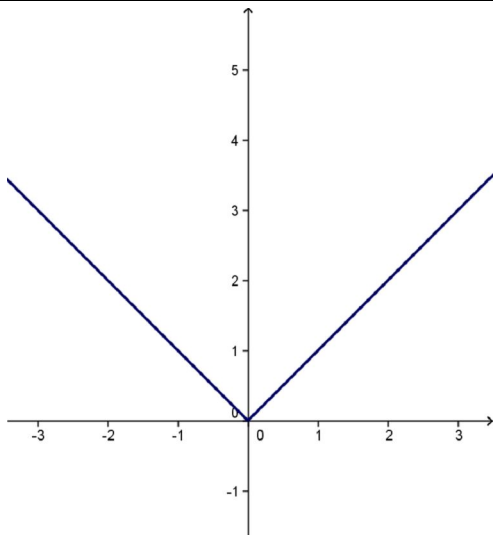
$$y = \sqrt[2]{x}$$



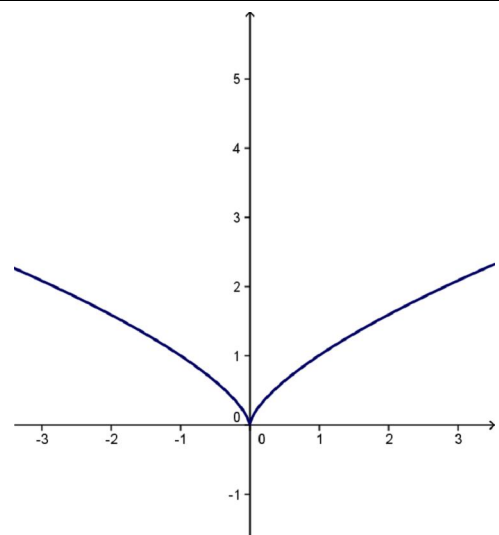
$$y = \sqrt[3]{x}$$



$$y = \sqrt[2]{x^2} = |x|$$

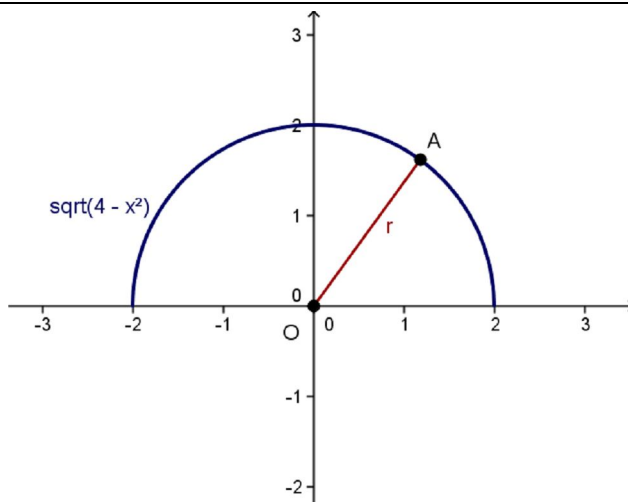


$$y = \sqrt[3]{x^2}$$



Semicirconferenza

$$y = \sqrt{a^2 - x^2} \quad \text{raggio} = a$$



Semiellisse

$$y = \sqrt{b^2 - \frac{b^2}{a^2} x^2} \quad \begin{array}{l} \text{semiasse orizzontale} = a \\ \text{semiasse verticale} = b \end{array}$$

