

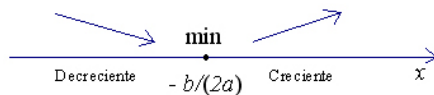
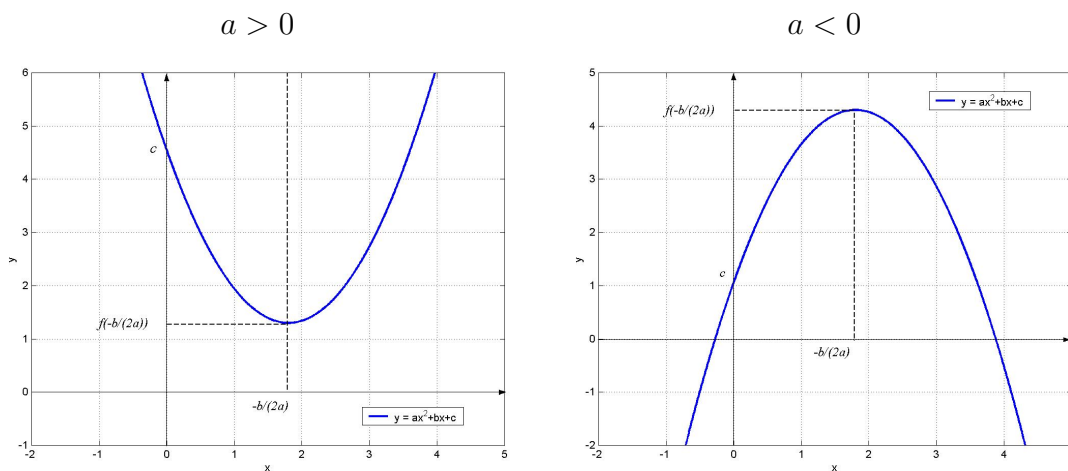
Funciones cuadráticas

Funciones cuadráticas (polinómicas de grado 2)

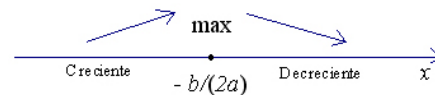
Son las funciones de la forma:

$$f : \mathbb{R} \rightarrow \mathbb{R} : f(x) = ax^2 + bx + c \text{ con } a \neq 0$$

Su representación gráfica es una *parábola* que la bosquejamos con su valor extremo $f(-\frac{b}{2a})$ y la ordenada en el origen $f(0) = c$:



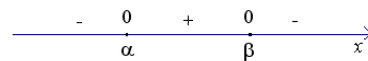
$$f(\mathbb{R}) = [f(-\frac{b}{2a}); +\infty)$$



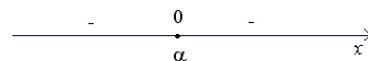
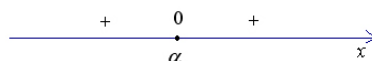
$$f(\mathbb{R}) = (-\infty; f(-\frac{b}{2a})]$$

$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$b^2 - 4ac > 0$$



$$b^2 - 4ac = 0$$



$$b^2 - 4ac < 0$$

