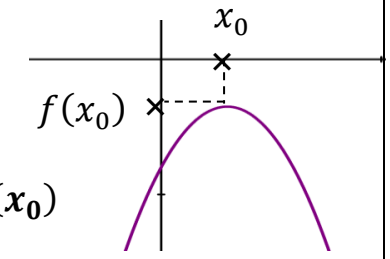
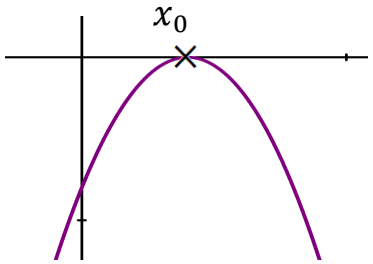
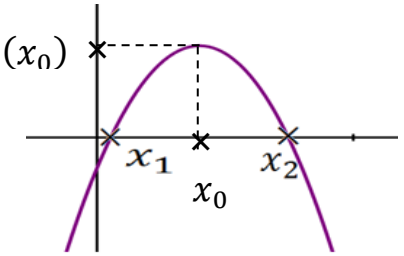
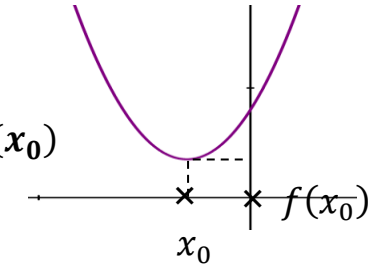
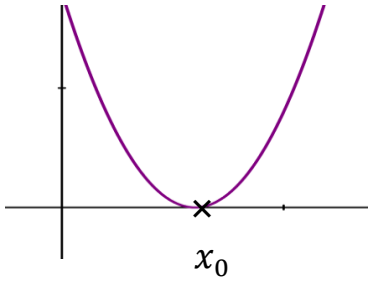
$f(x) = ax^2 + bx + c$ $\quad \Delta = b^2 - 4ac$ $\quad f(x) = a(x - x_0)^2 + f(x_0)$

	$\Delta < 0$	$\Delta = 0 \Rightarrow x_0 = -\frac{b}{2a}$	$\Delta > 0 \Rightarrow x_{1,2} = \frac{-b \pm \sqrt{\Delta}}{2a}$
$a < 0$ x | $-\infty$ | x_0 | $+\infty$ $f(x)$ | ↗ | $f(x_0)$ | ↘	Pas de factorisation $f(x) = 0 \Rightarrow S = \emptyset$ x | $-\infty$ | $+\infty$ $f(x)$ | $-$ Toujours négatif Maximum $f(x) \leq f(x_0)$ 	$f(x) = a(x - x_0)^2$ $f(x) = 0 \Rightarrow S = \{x_0\}$ x | $-\infty$ | x_0 | $+\infty$ $f(x)$ | $-$ | 0 | $-$ Toujours négatif Maximum $f(x) \leq 0$ 	$f(x) = a(x - x_1)(x - x_2)$ $f(x) = 0 \Rightarrow S = \{x_1; x_2\}$ Signe x | $-\infty$ | x_1 | | x_2 | $+\infty$ $f(x)$ | $-$ | 0 | $+$ | 0 | $-$ Maximum $f(x) \leq f(x_0)$ 
$a > 0$ x | $-\infty$ | x_0 | $+\infty$ $f(x)$ | ↘ | $f(x_0)$ | ↗	Pas de factorisation $f(x) = 0 \Rightarrow S = \emptyset$ x | $-\infty$ | $+\infty$ $f(x)$ | $+$ Toujours positif Minimum $f(x) \geq f(x_0)$ 	$f(x) = a(x - x_0)^2$ $f(x) = 0 \Rightarrow S = \{x_0\}$ x | $-\infty$ | x_0 | $+\infty$ $f(x)$ | $+$ | 0 | $+$ Toujours positif Minimum $f(x) \geq 0$ 	$f(x) = a(x - x_1)(x - x_2)$ $f(x) = 0 \Rightarrow S = \{x_1; x_2\}$ Signe x | $-\infty$ | x_1 | | x_2 | $+\infty$ $f(x)$ | $+$ | 0 | $-$ | 0 | $+$ Minimum $f(x) \geq f(x_0)$