

## Tableau récapitulatif sur les graphes de fonctions quadratiques

	$a > 0$ (convexe) Le sommet de la parabole est un minimum	$a < 0$ (concave) Le sommet de la parabole est un maximum
$\Delta > 0$	<p>Graph of a convex parabola (<math>a &gt; 0</math>) with two real roots. The vertex <math>S</math> is at <math>\left(-\frac{b}{2a}, -\frac{\Delta}{4a}\right)</math>. The roots are <math>Z_1 = \left(\frac{-b - \sqrt{\Delta}}{2a}; 0\right)</math> and <math>Z_2 = \left(\frac{-b + \sqrt{\Delta}}{2a}; 0\right)</math>. The y-intercept is <math>\mathcal{H}(0; c)</math>.</p>	<p>Graph of a concave parabola (<math>a &lt; 0</math>) with two real roots. The vertex <math>S</math> is at <math>\left(-\frac{b}{2a}, -\frac{\Delta}{4a}\right)</math>. The roots are <math>Z_1 = \left(\frac{-b + \sqrt{\Delta}}{2a}; 0\right)</math> and <math>Z_2 = \left(\frac{-b - \sqrt{\Delta}}{2a}; 0\right)</math>. The y-intercept is <math>\mathcal{H}(0; c)</math>.</p>
$\Delta = 0$	<p>Graph of a convex parabola (<math>a &gt; 0</math>) with one real root. The vertex <math>S</math> is at <math>\left(-\frac{b}{2a}, 0\right)</math>. The y-intercept is <math>\mathcal{H}(0; c)</math>.</p>	<p>Graph of a concave parabola (<math>a &lt; 0</math>) with one real root. The vertex <math>S</math> is at <math>\left(-\frac{b}{2a}, 0\right)</math>. The y-intercept is <math>\mathcal{H}(0; c)</math>.</p>
$\Delta < 0$	<p>Graph of a convex parabola (<math>a &gt; 0</math>) with no real roots. The vertex <math>S</math> is at <math>\left(-\frac{b}{2a}, -\frac{\Delta}{4a}\right)</math>. The y-intercept is <math>\mathcal{H}(0; c)</math>.</p>	<p>Graph of a concave parabola (<math>a &lt; 0</math>) with no real roots. The vertex <math>S</math> is at <math>\left(-\frac{b}{2a}, -\frac{\Delta}{4a}\right)</math>. The y-intercept is <math>\mathcal{H}(0; c)</math>.</p>