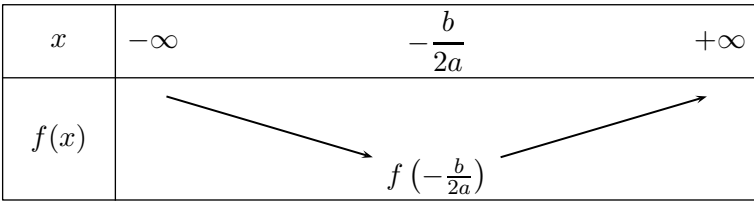
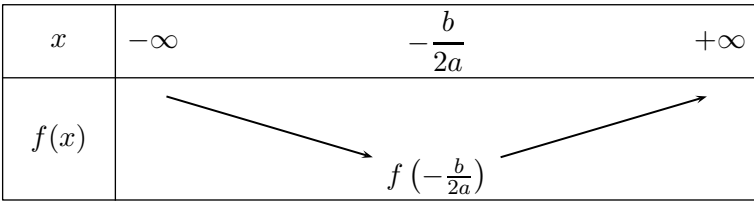
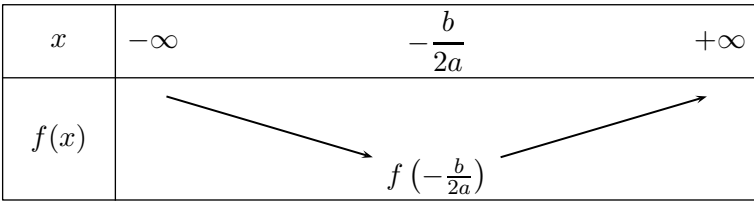
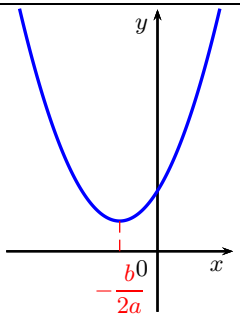
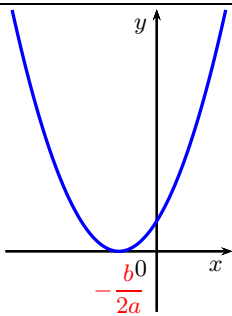
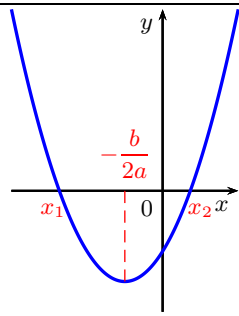
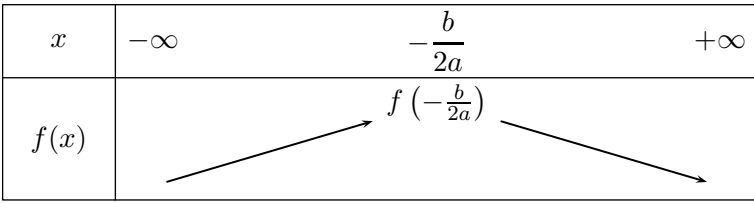
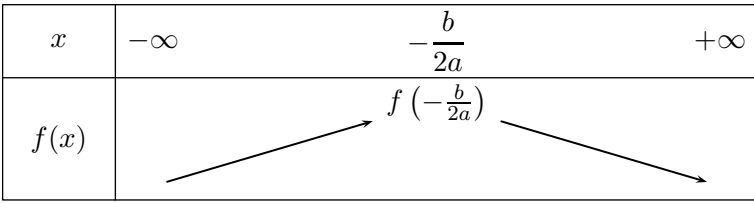
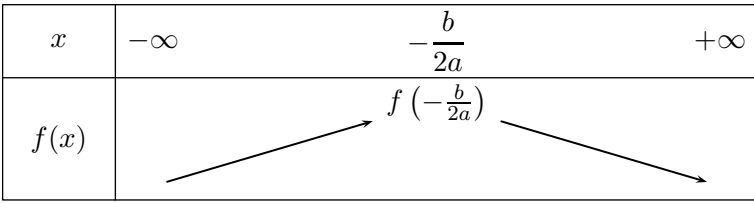
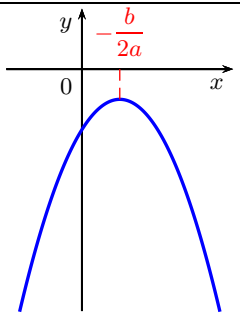
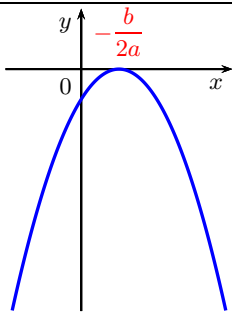
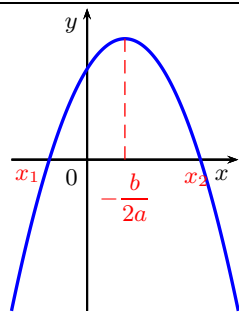


MATHEMATIQUES

Résumé sur le second degré

$$f(x) = ax^2 + bx + c \text{ avec } a \neq 0$$

Discriminant $\Delta = b^2 - 4ac$		$\Delta < 0$	$\Delta = 0$	$\Delta > 0$								
$a > 0$	Variations	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">x</td> <td style="text-align: center;">$-\infty$</td> <td style="text-align: center;">$-\frac{b}{2a}$</td> <td style="text-align: center;">$+\infty$</td> </tr> <tr> <td style="text-align: center;">$f(x)$</td> <td colspan="3" style="text-align: center;">  </td> </tr> </table>			x	$-\infty$	$-\frac{b}{2a}$	$+\infty$	$f(x)$			
	x	$-\infty$	$-\frac{b}{2a}$	$+\infty$								
	$f(x)$											
	Courbe											
Solutions de $ax^2 + bx + c = 0$	Pas de solution	Une solution : $x_0 = -\frac{b}{2a}$	Deux solutions : $x_1 = \frac{-b - \sqrt{\Delta}}{2a}$ $x_2 = \frac{-b + \sqrt{\Delta}}{2a}$									
Signe de $ax^2 + bx + c$	Strictement positif sur \mathbb{R}	Positif sur \mathbb{R}	Positif sur $]-\infty; x_1] \cup [x_2; +\infty[$ Négatif sur $[x_1; x_2]$									
$a < 0$	Variations	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">x</td> <td style="text-align: center;">$-\infty$</td> <td style="text-align: center;">$-\frac{b}{2a}$</td> <td style="text-align: center;">$+\infty$</td> </tr> <tr> <td style="text-align: center;">$f(x)$</td> <td colspan="3" style="text-align: center;">  </td> </tr> </table>			x	$-\infty$	$-\frac{b}{2a}$	$+\infty$	$f(x)$			
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Solutions de $ax^2 + bx + c = 0$	Pas de solution	Une solution : $x_0 = -\frac{b}{2a}$	Deux solutions : $x_1 = \frac{-b - \sqrt{\Delta}}{2a}$ $x_2 = \frac{-b + \sqrt{\Delta}}{2a}$									
Signe de $ax^2 + bx + c$	Strictement négatif sur \mathbb{R}	Négatif sur \mathbb{R}	Négatif sur $]-\infty; x_1] \cup [x_2; +\infty[$ Positif sur $[x_1; x_2]$									