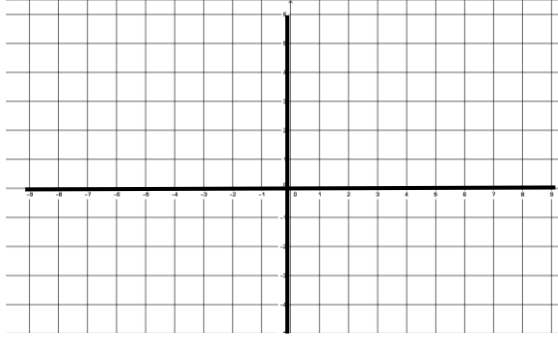
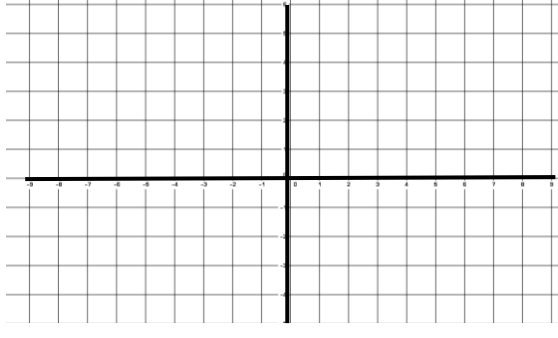
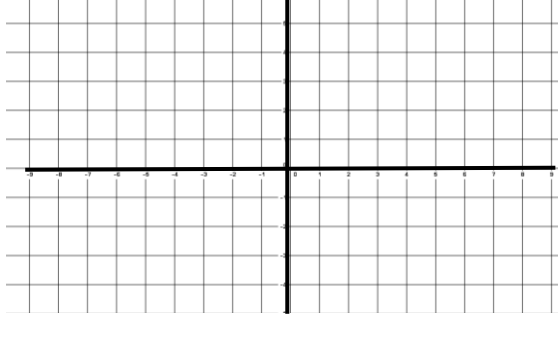
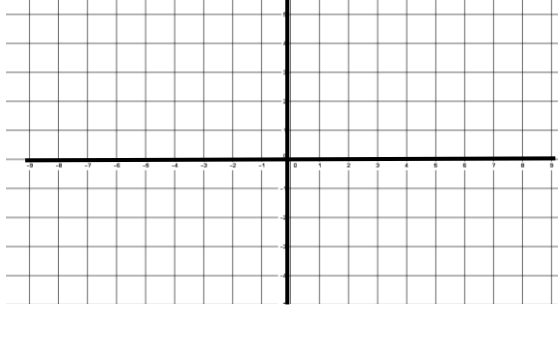


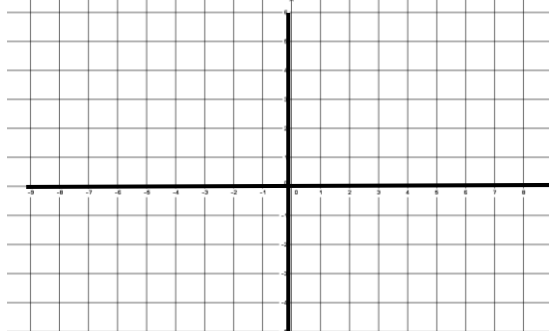
## LE SECOND DEGRE - Etude graphique

**Objectif du TD :** S'approprier les fonctions du type  $f(x) = ax^2 + bx + c$  en étudiant graphiquement leurs courbes représentatives avec Géogébra.

$f(x) = x^2 - 4x - 5$	<p><u>Allure courbe :</u></p> 	<p><u>Racines :</u> <math>x_A =</math> ; <math>x_B =</math></p> <p><u>Tableau de signe :</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"><math>x</math></td> <td style="width: 70%; text-align: center;"><math>-\infty</math> ; <math>+\infty</math></td> </tr> <tr> <td style="text-align: center;"><math>f(x)</math></td> <td></td> </tr> </table>	$x$	$-\infty$ ; $+\infty$	$f(x)$	
$x$	$-\infty$ ; $+\infty$					
$f(x)$						
$f(x) = 2x^2 - x + 1$	<p><u>Allure courbe :</u></p> 	<p><u>Racines :</u> <math>x_A =</math> ; <math>x_B =</math></p> <p><u>Tableau de signe :</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"><math>x</math></td> <td style="width: 70%; text-align: center;"><math>-\infty</math> ; <math>+\infty</math></td> </tr> <tr> <td style="text-align: center;"><math>f(x)</math></td> <td></td> </tr> </table>	$x$	$-\infty$ ; $+\infty$	$f(x)$	
$x$	$-\infty$ ; $+\infty$					
$f(x)$						
$f(x) = -2x^2 + 6x - 4$	<p><u>Allure courbe :</u></p> 	<p><u>Racines :</u> <math>x_A =</math> ; <math>x_B =</math></p> <p><u>Tableau de signe :</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"><math>x</math></td> <td style="width: 70%; text-align: center;"><math>-\infty</math> ; <math>+\infty</math></td> </tr> <tr> <td style="text-align: center;"><math>f(x)</math></td> <td></td> </tr> </table>	$x$	$-\infty$ ; $+\infty$	$f(x)$	
$x$	$-\infty$ ; $+\infty$					
$f(x)$						
$f(x) = -0.1x^2 + x - 4$	<p><u>Allure courbe :</u></p> 	<p><u>Racines :</u> <math>x_A =</math> ; <math>x_B =</math></p> <p><u>Tableau de signe :</u></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"><math>x</math></td> <td style="width: 70%; text-align: center;"><math>-\infty</math> ; <math>+\infty</math></td> </tr> <tr> <td style="text-align: center;"><math>f(x)</math></td> <td></td> </tr> </table>	$x$	$-\infty$ ; $+\infty$	$f(x)$	
$x$	$-\infty$ ; $+\infty$					
$f(x)$						

$$f(x) = x^2 - 2x + 1$$

Allure courbe :



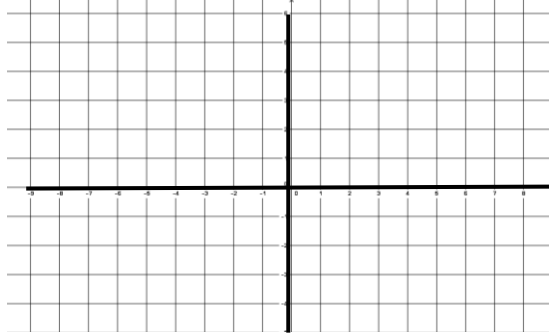
Racines :  $x_A =$  ;  $x_B =$

Tableau de signe :

$x$	$-\infty$	$+\infty$
$f(x)$		

$$f(x) = (x - 2)(x + 4)$$

Allure courbe :



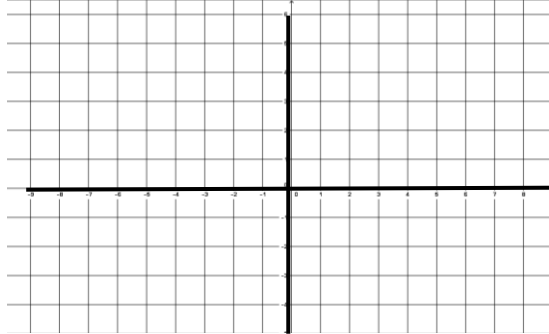
Racines :  $x_A =$  ;  $x_B =$

Tableau de signe :

$x$	$-\infty$	$+\infty$
$f(x)$		

$$f(x) = (3 - x)(x + 4)$$

Allure courbe :



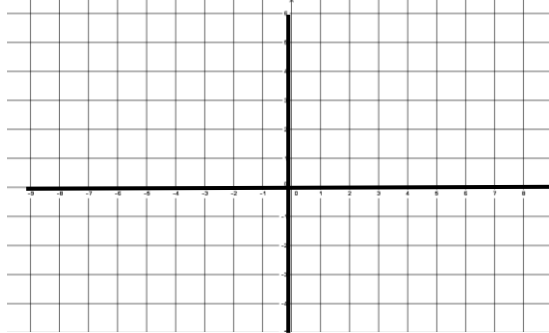
Racines :  $x_A =$  ;  $x_B =$

Tableau de signe :

$x$	$-\infty$	$+\infty$
$f(x)$		

$$f(x) = (x - 5)(x + 5)$$

Allure courbe :



Racines :  $x_A =$  ;  $x_B =$

Tableau de signe :

$x$	$-\infty$	$+\infty$
$f(x)$		