Pour chaque polynôme : **a.** Calculer le discriminant
b. Calculer les racines (il y en a systématiquement deux).
c. En déduire la forme factorisée du polynôme.

$A(x) = x^2 - 3x - 10 = 0$

a.

$\Delta = b^2 - 4ac$
$\Delta = \ldots\ldots^2 - 4 \times \ldots\ldots \times \ldots\ldots$
$\Delta =$
$\Delta = (\ldots\ldots)^2$

b. $x_1 = \dfrac{-b + \sqrt{\Delta}}{2a}$ $x_2 = \dfrac{-b - \sqrt{\Delta}}{2a}$

$x_1 = \dfrac{\ldots\ldots + \ldots\ldots}{\ldots\ldots}$ $x_2 = \dfrac{\ldots\ldots - \ldots\ldots}{\ldots\ldots}$

$x_1 =$ $x_2 =$

c. $A(x) =$

$B(x) = x^2 - 2x - 15 = 0$

a.

$\Delta = b^2 - 4ac$
$\Delta = \ldots\ldots^2 - 4 \times \ldots\ldots \times \ldots\ldots$
$\Delta =$
$\Delta = (\ldots\ldots)^2$

b. $x_1 = \dfrac{-b + \sqrt{\Delta}}{2a}$ $x_2 = \dfrac{-b - \sqrt{\Delta}}{2a}$

$x_1 = \dfrac{\ldots\ldots + \ldots\ldots}{\ldots\ldots}$ $x_2 = \dfrac{\ldots\ldots - \ldots\ldots}{\ldots\ldots}$

$x_1 =$ $x_2 =$

c. $B(x) =$

$C(x) = 6x^2 - x - 1 = 0$

a.

$\Delta = b^2 - 4ac$
$\Delta = \ldots\ldots^2 - 4 \times \ldots\ldots \times \ldots\ldots$
$\Delta =$
$\Delta = (\ldots\ldots)^2$

b. $x_1 = \dfrac{-b + \sqrt{\Delta}}{2a}$ $x_2 = \dfrac{-b - \sqrt{\Delta}}{2a}$

$x_1 = \dfrac{\ldots\ldots + \ldots\ldots}{\ldots\ldots}$ $x_2 = \dfrac{\ldots\ldots - \ldots\ldots}{\ldots\ldots}$

$x_1 =$ $x_2 =$

c. $C(x) =$

$D(x) = 6x^2 + 11x - 10 = 0$

a.

$\Delta = b^2 - 4ac$
$\Delta = \ldots\ldots^2 - 4 \times \ldots\ldots \times \ldots\ldots$
$\Delta =$
$\Delta = (\ldots\ldots)^2$

b. $x_1 = \dfrac{-b + \sqrt{\Delta}}{2a}$ $x_2 = \dfrac{-b - \sqrt{\Delta}}{2a}$

$x_1 = \dfrac{\ldots\ldots + \ldots\ldots}{\ldots\ldots}$ $x_2 = \dfrac{\ldots\ldots - \ldots\ldots}{\ldots\ldots}$

$x_1 =$ $x_2 =$

c. $D(x) =$

$E(x) = 15x^2 - 4x - 4 = 0$

a.

$\Delta = b^2 - 4ac$
$\Delta = \ldots\ldots^2 - 4 \times \ldots\ldots \times \ldots\ldots$
$\Delta =$
$\Delta = (\ldots\ldots)^2$

b. $x_1 = \dfrac{-b + \sqrt{\Delta}}{2a}$ $x_2 = \dfrac{-b - \sqrt{\Delta}}{2a}$

$x_1 = \dfrac{\ldots\ldots + \ldots\ldots}{\ldots\ldots}$ $x_2 = \dfrac{\ldots\ldots - \ldots\ldots}{\ldots\ldots}$

$x_1 =$ $x_2 =$

c. $E(x) =$

$F(x) = 9x^2 - 6x - 1 = 0$

a.

$\Delta = b^2 - 4ac$
$\Delta = \ldots\ldots^2 - 4 \times \ldots\ldots \times \ldots\ldots$
$\Delta =$
$\Delta = (\ldots\ldots)^2$

b. $x_1 = \dfrac{-b + \sqrt{\Delta}}{2a}$ $x_2 = \dfrac{-b - \sqrt{\Delta}}{2a}$

$x_1 = \dfrac{\ldots\ldots + \ldots\ldots}{\ldots\ldots}$ $x_2 = \dfrac{\ldots\ldots - \ldots\ldots}{\ldots\ldots}$

$x_1 =$ $x_2 =$

c. $F(x) =$