EJERCICIOS FUNCION CUADRÁTICA

$Y = x^2$

X	$Y = X^2$
0	0
1	1
2	4
−1	1
−2	4

$Y = -x^2$
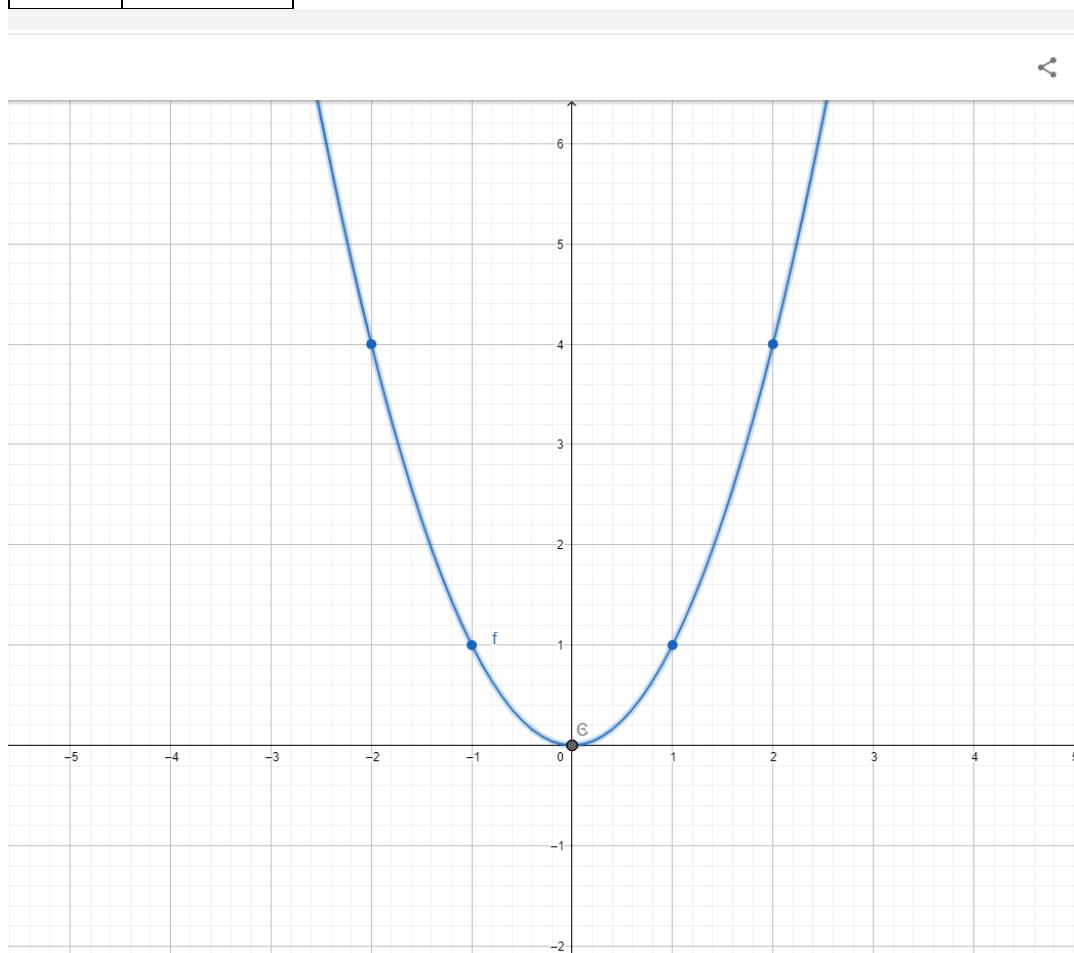
X	$Y = -X^2$
0	0
1	−1
2	−4
−1	−1
−2	−4
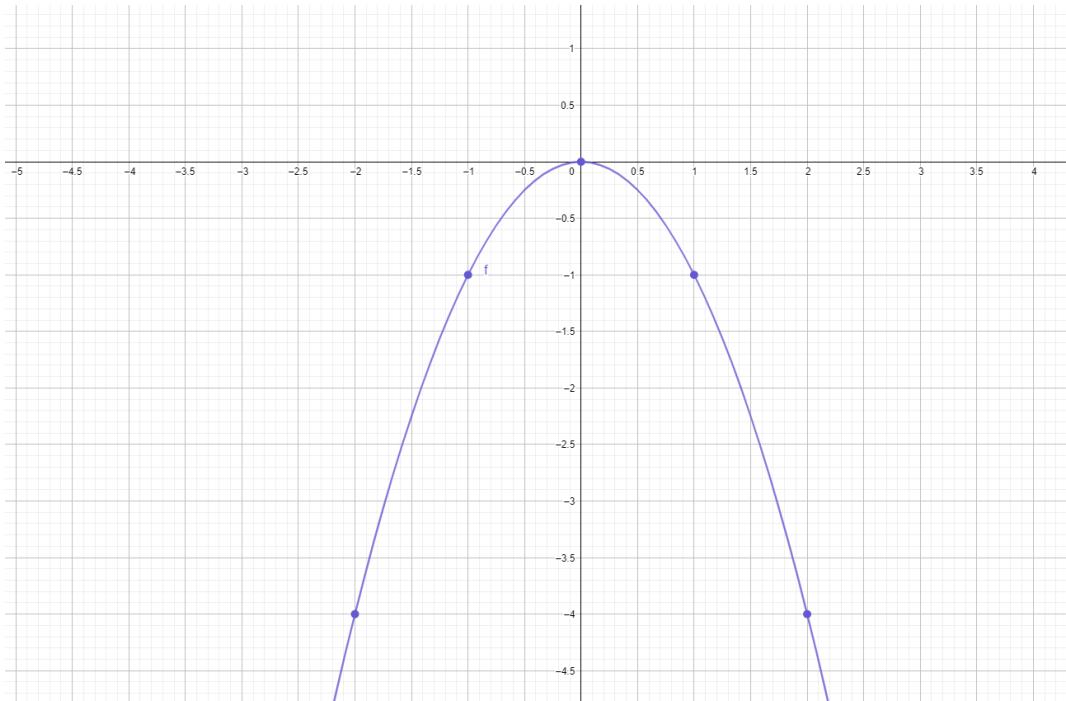
Y = 2x²

X	Y = 2X²
0	0
1	2
2	8
−1	2
−2	8
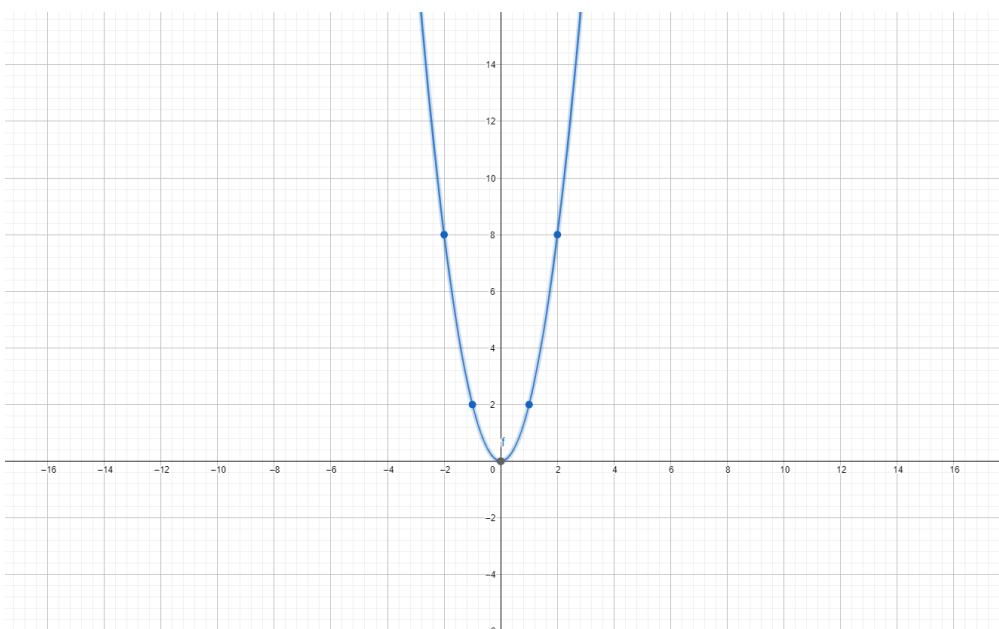
Y = −3x²

X	Y = −3X²
0	0
1	−3
2	−12
−1	−3
−2	−12
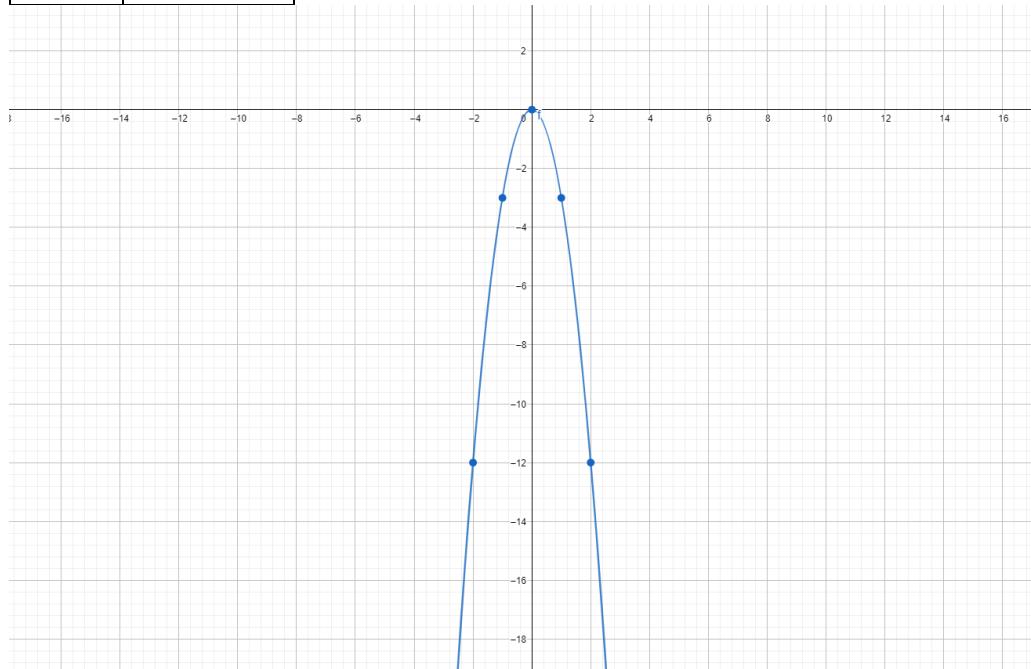
Y = X² + 5
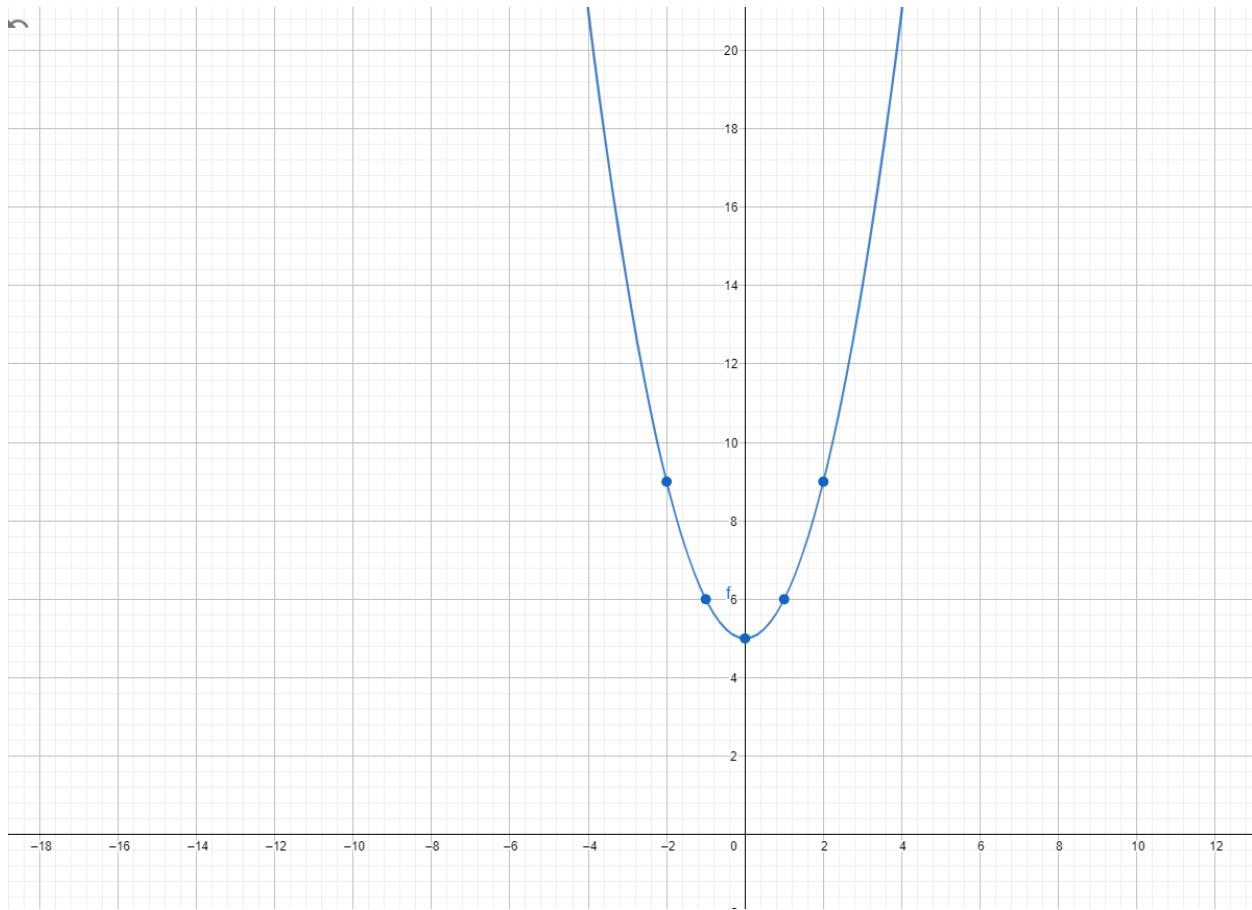
Y = X² − 2

X	Y = X² − 2
0	5
1	6
2	9
−1	6
−2	9
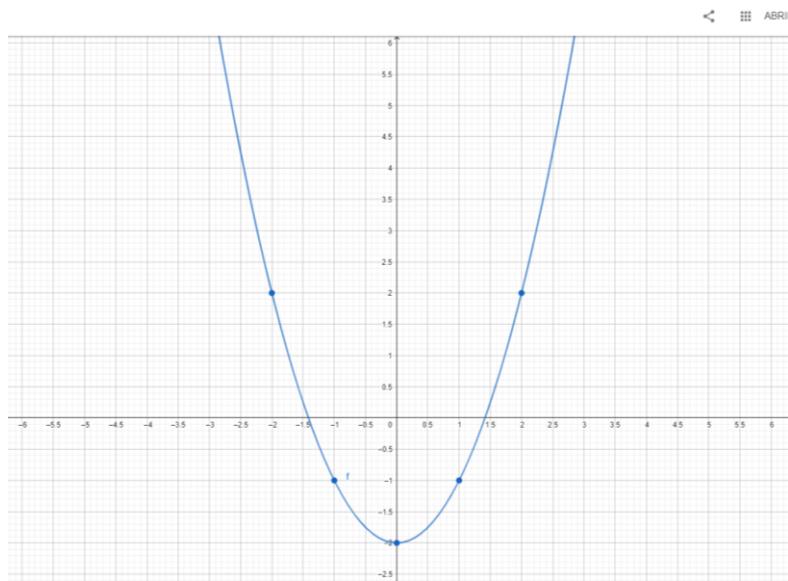
$Y = 3X^2 - 4$

X	$Y = 3X^2 - 4$
0	−4
1	−1
2	8
−1	−1
−2	8
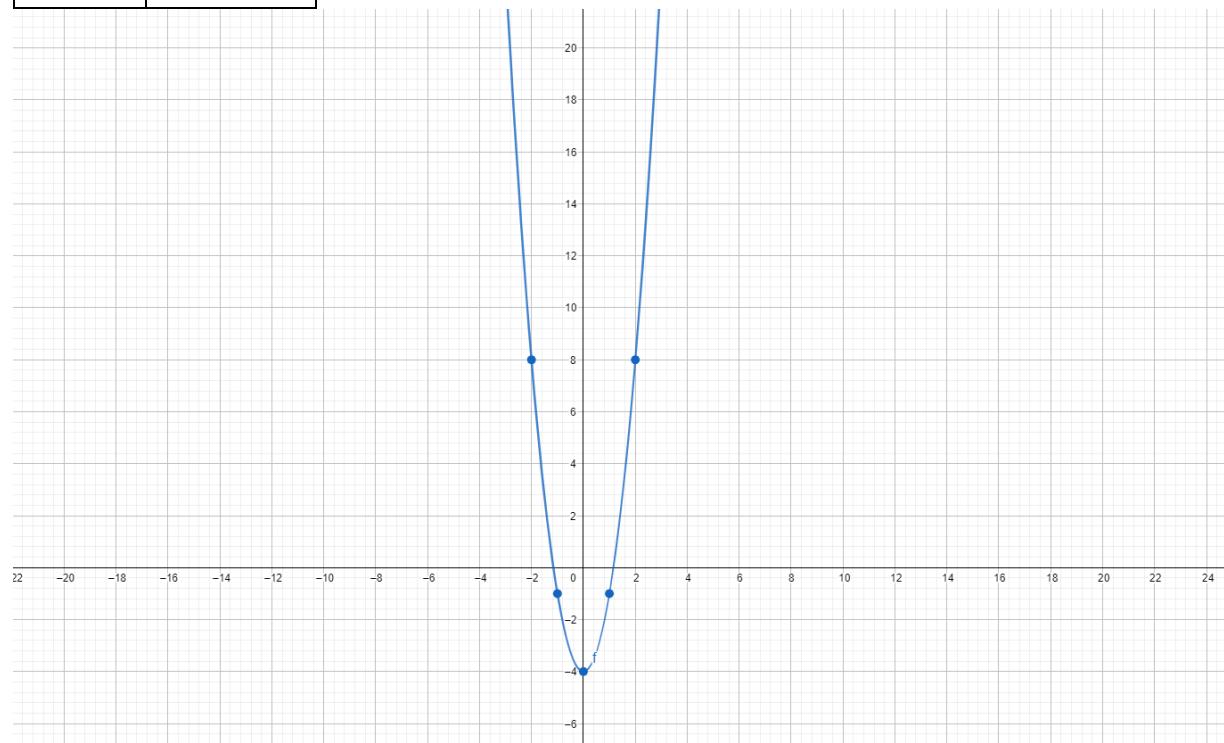
Y = −4X^2 + 3

X	Y = −4X^2 + 3
0	3
1	−1
2	−13
−1	−1
−2	−13
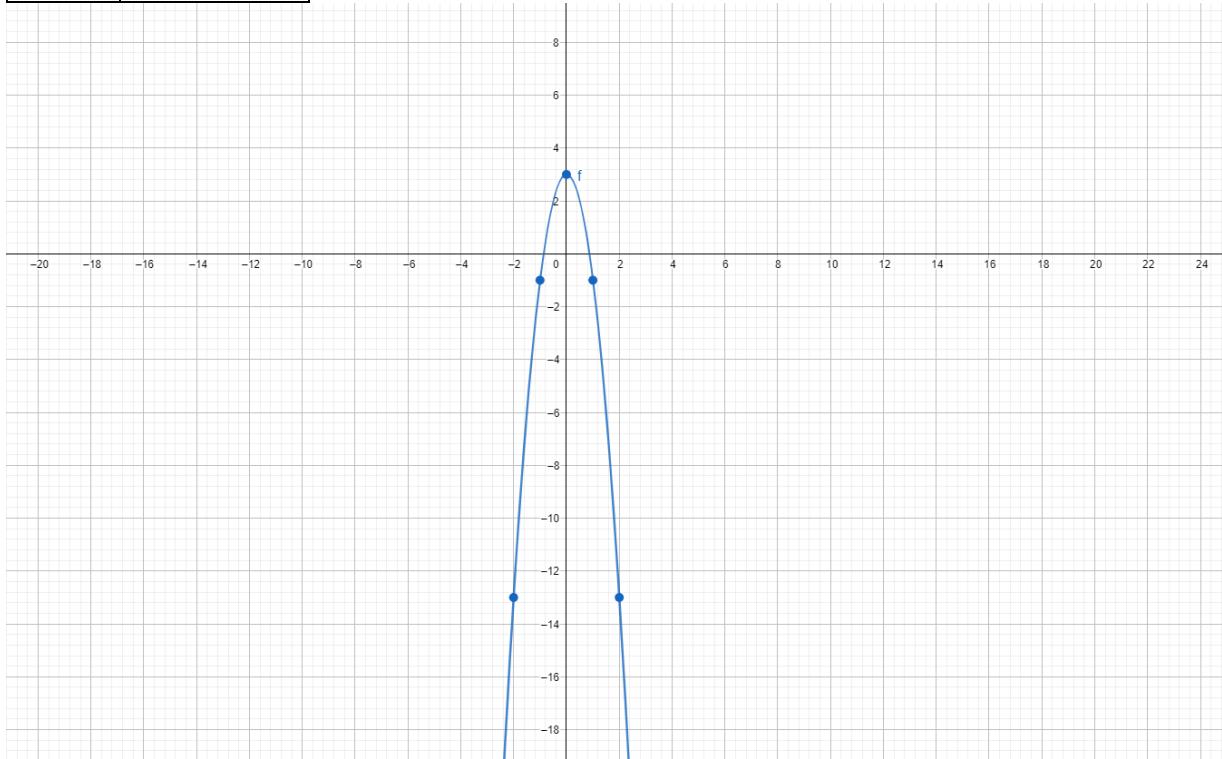
Y = X^2 + 7X + 10   A = 1   B= 7   C= 10

VERTICE: $\left[\frac{-B}{2A}, f(\frac{-B}{2A})\right]$ $= (-3.5, -2.5)$

$\frac{-B}{2A} = \frac{-7}{2(1)} = -3.5$

$f(\frac{-B}{2A}) = (-3.5)^2 + 7(-3.5) + 10 = 12 - 24.5 + 10 = -2.5$

PUNTOS DE CORTE CON EL EJE X

Y = X^2 + 7X + 10 = 0

$X^2 + 7X + 10 = (X + 5)(X + 2)$

$X = -5$ $X = -2$
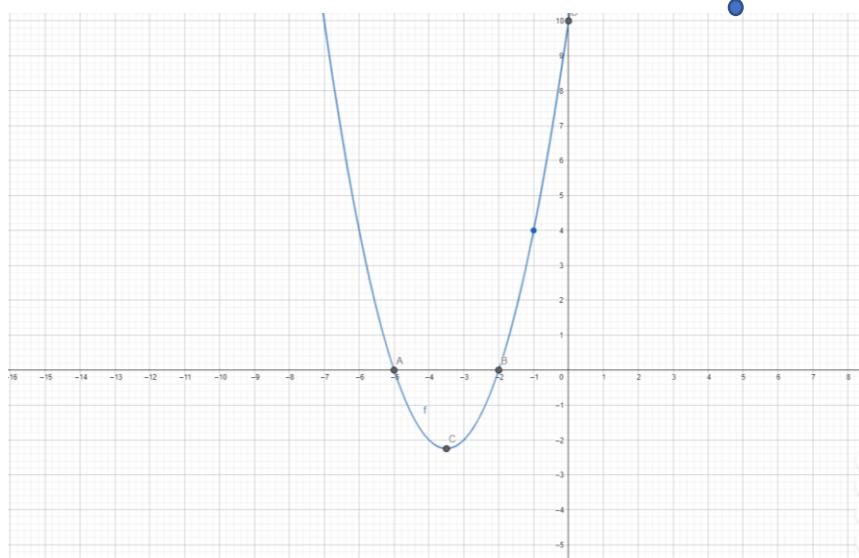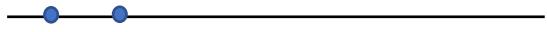
$Y = X^2 - 5X + 6 =$

VERTICE: $\left[\frac{-B}{2A}, f\left(\frac{5}{2A}\right)\right]$ $= (2.5, -0.5)$

$\frac{-B}{2A} = \frac{5}{2(1)} = 2.5$

$f\left(\frac{-B}{2A}\right) = (2.5)^2 - 5(2.5) + 6 = 6 - 12.5 + 6 = -0,5$

PUNTOS DE CORTE CON EL EJE X

$Y = X^2 - 5X + 6 = 0$

$\underline{X^2 - 5X + 6 = (X - 3)(X - 2)}$

$\underline{X = 3 \hspace{2cm} X = 2}$
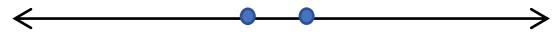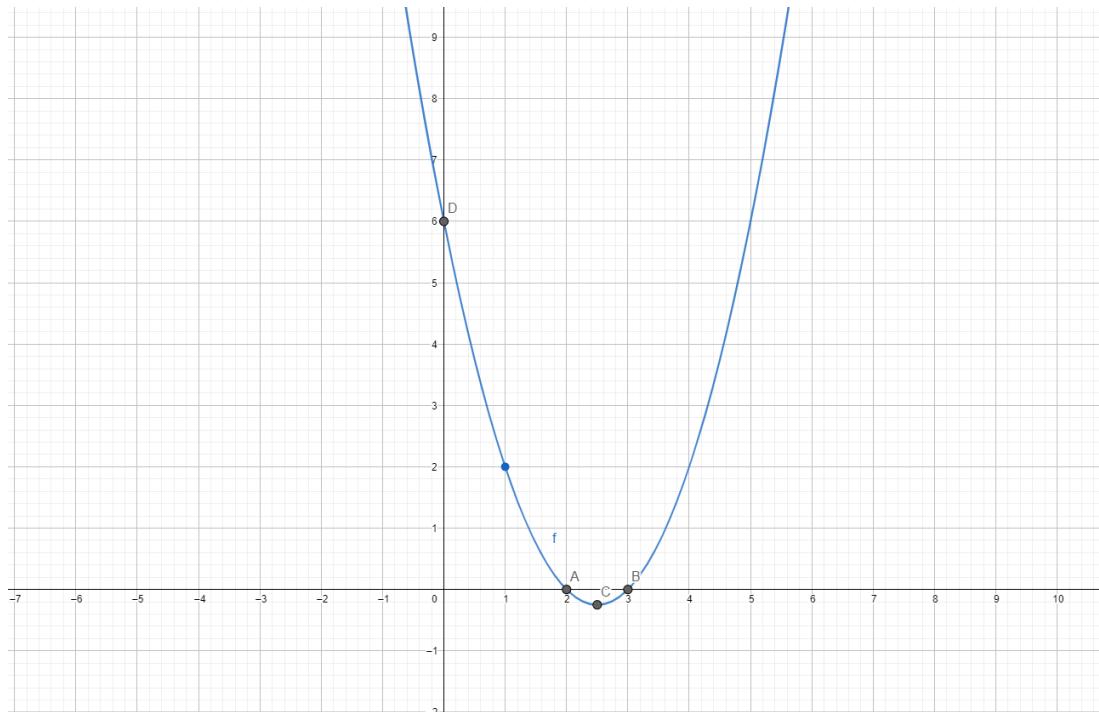
Y + 10= X^2 + 3X

Y = X^2 + 3X − 10   A = 1   B= 3   C= −10

VERTICE: $\left[\frac{-B}{2A}, f(\frac{-B}{2A})\right]$ = (−1.5, −8.5)

$\frac{-B}{2A} = \frac{-3}{2(1)}$ = −3.5

$f(\frac{-B}{2A})$ = $(-3.5)^2$ +3(−3.5) −10 = 12 − 10.5 − 10 =− 8,5

PUNTOS DE CORTE CON EL EJE X

Y = X^2 + 3X − 10 = 0

 X^2 + 3X − 10 = (X + 5)(X − 2)

X = −5   X = 2
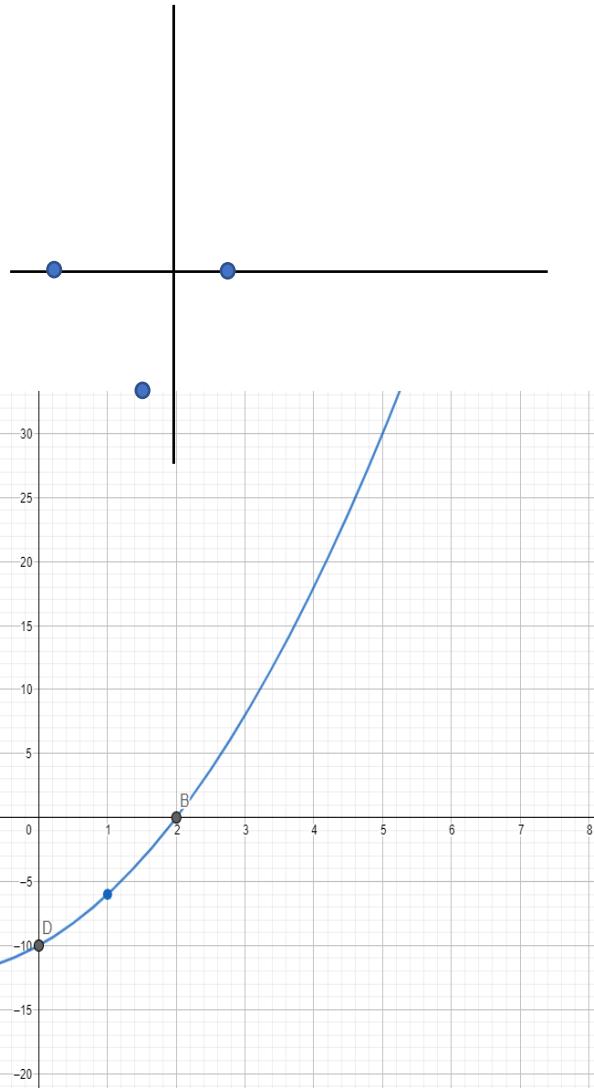
Y − X^2 + 2 = 0

Y = X^2 + 4X + 3

Y + 9X = −X^2 + 20

Y = 2x + 1

Y =ax+ b

Y = 3x^2+ 8x + 4

$$\frac{(3x)^2 + 8(3x) + 12}{3} =$$

$$\frac{(3x+6)(3x+2)}{3}$$

$$\underline{(x+2)(3x+2)}$$

X = −2   x = −$\frac{2}{3}$

A = 3   B = 8   C = 4

$$\frac{-B}{2A} = \frac{-8}{2*3} = -\frac{8}{6} = -\frac{4}{3}$$

Y = 3*$\left(-\frac{4}{3}\right)$ + 8*$\left(-\frac{4}{3}\right)$ + 4

Y = − 4 − $\frac{32}{3}$ + 4

Y = − $\frac{32}{3}$
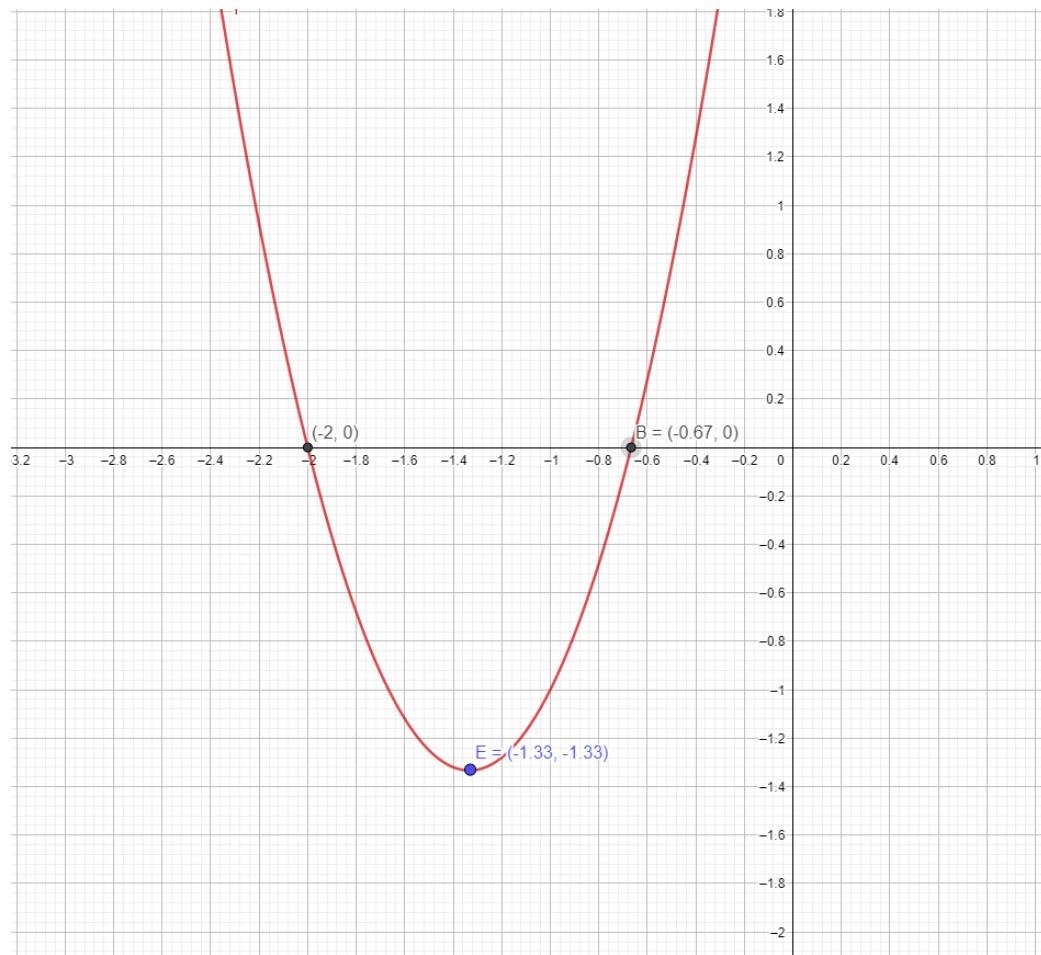
EJERCICIOS PARA RESOLVER

Y = X^2+4X+3

Y = X^2–X–6

Y = X^2+7X+6

Y = X^2–5X–14

Y = X^2–4X+3