EJERCICIOS FUNCION CUADRÁTICA

Y = X2 + 5

|  |  |
| --- | --- |
| X | Y = X2 + 5 |
| 0 | 5 |
| 1 | 6 |
| 2 | 9 |
| -1 | 6 |
| -2 | 9 |
|  |  |

Y = 3X2 – 4

|  |  |
| --- | --- |
| X | Y = 3X2 – 4 |
| 0 | -4 |
| 1 | -1 |
| 2 | 8 |
| -1 | -1 |
| -2 | 8 |
|  |  |

Y = -4X2 + 3

|  |  |
| --- | --- |
| X | Y = -4X2 + 3 |
| 0 | 3 |
| 1 | -1 |
| 2 | -13 |
| -1 | -1 |
| -2 | -13 |
|  |  |

Y = X2 + 7X + 10 A = 1 B= 7 C= 10

VERTICE: [$\frac{-B}{2A}$ , f($\frac{-B}{2A}$) ] = (-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 = X2 + 7X + 10 = 0

 X2 + 7X + 10 = (X + 5)(X + 2)

X = -5 X = -2

Y = X2 -5X +6

VERTICE: [$\frac{-B}{2A}$ , f($\frac{5}{2A}$) ] = (2.5, 3.5)

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

f($\frac{-B}{2A}$) = (2.5)2 -5(2.5) +10 = 6 - 12.5 + 10 = 3.5

PUNTOS DE CORTE CON EL EJE X

Y = X2 - 5X + 6 = 0

 X2 - 5X + 6 = (X -3 )(X - 2)

X = 3 X = 2

Y + 10= X2 + 3X

Y = X2 + 3X – 10 A = 1 B= 3 C= -10

VERTICE: [$\frac{-B}{2A}$ , f($\frac{-B}{2A}$) ] = (-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 = X2 + 3X – 10 = 0

 X2 + 3X - 10 = (X + 5)(X - 2)

X = -5 X = 2

Y = X2 +X – 2

VERTICE: [$\frac{-B}{2A}$ , f($\frac{-B}{2A}$) ] = (-1.5, – 2.2)

$\frac{-B}{2A}$ =$\frac{-1}{2(1)}$ = -0.5

f($\frac{-B}{2A}$) = (-0.5)2 +(-0.5) – 2 = 0.25 $-$ 0.5 $-$ 2 = – 2.25

PUNTOS DE CORTE CON EL EJE X

Y = X2 + X – 2 = 0

 X2 + X – 2 = (X + 2)(X – 1)

X = – 2 X = 1

Y = X2 + 4X + 3

Y = X2 + 4X + 3

Y = X2 + 5X – 14

Y = X2 – 9X + 20

Y = X2 – X – 6

Y = X2 – 9X + 8

Y = 3x2+ 8x + 4 a = 3 B = 8 C = 4

VERTICE: [$\frac{-B}{2A}$ , f($\frac{-B}{2A}$) ] = (-1.3, $-$1.4)

$\frac{-B}{2A}$ =$\frac{-8}{2(3)}$ = -1,3

f($\frac{-B}{2A}$) = 3(-1.3)2 +8(-1.3) + 4 = 5 $-$ 10.4+ 4 =$-$ 1.4

PUNTOS DE CORTE CON EL EJE X

Y = X2 + 3X – 10 = 0

 X2 + 3X - 10 = (X + 5)(X - 2)

X = -5 X = 2