

#2 LT 3.2 : Equation of Axis of symmetry

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

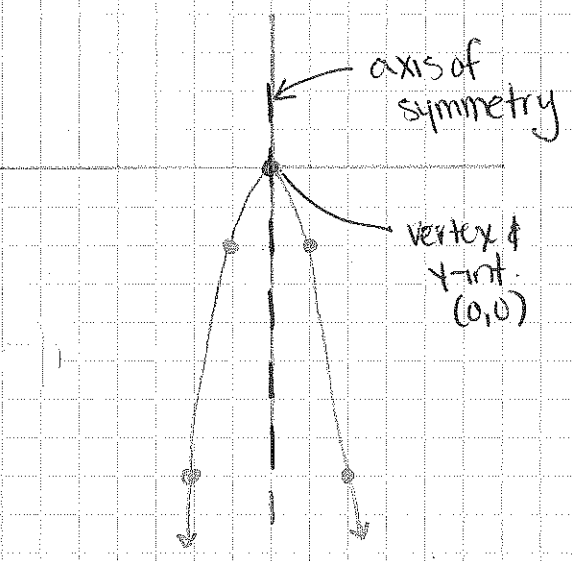
① y-inter: (0,0)

① a = -2 b = 0 c = 0

② $x = \frac{-b}{2a} = \frac{-0}{2(-2)} = 0$

③ $f(0) = -2(0)^2 = 0$
(0,0)

④ Graph



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

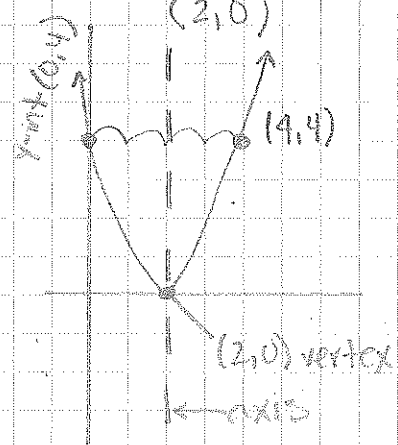
① a = 1 b = -4 c = 4

② y-int: (0,4)

② $x = \frac{-b}{2a} = \frac{-(-4)}{2(1)}$

x = 2

③ $f(2) = 2^2 - 4(2) + 4$
 $= 4 - 8 + 4$
 $= 0$
(2,0)



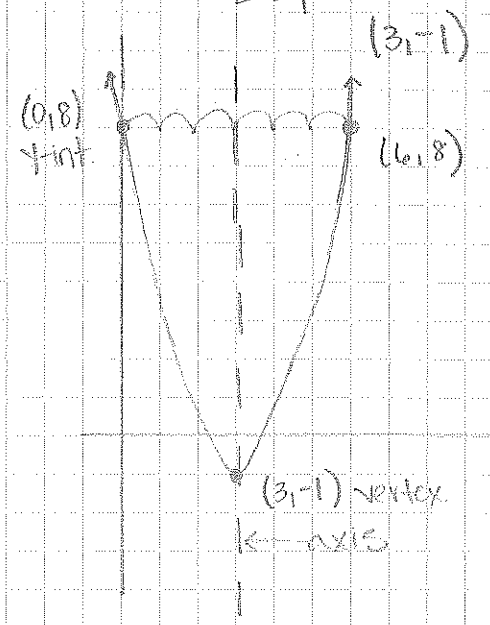
3. $f(x) = x^2 - 6x + 8$

① a = 1 b = -6 c = 8

② (0,8)

② $x = \frac{-b}{2a} = \frac{-(-6)}{2(1)} = \frac{6}{2} = 3$

③ $f(3) = 3^2 - 6(3) + 8$
 $= 9 - 18 + 8$
 $= -9 + 8$
 $= -1$



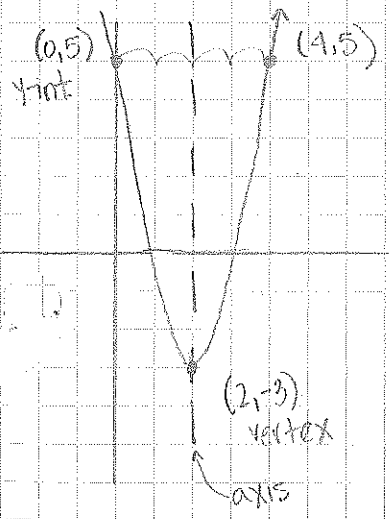
4. $f(x) = 2x^2 - 8x + 5$

① a = 2 b = -8 c = 5

② (0,5)

② $x = \frac{-b}{2a} = \frac{-(-8)}{2(2)} = 2$

③ $f(2) = 8 - 16 + 5 = -3$
(2,-3)



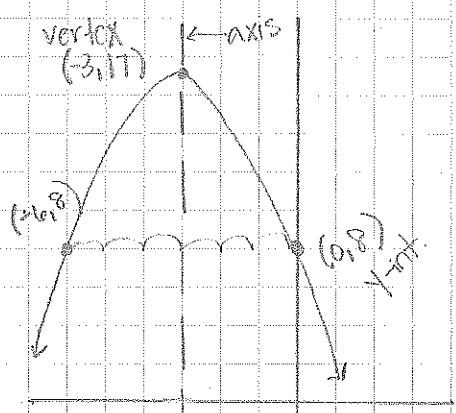
5. $f(x) = -x^2 - 6x + 8$

① a = -1 b = -6 c = 8

② (0,8)

② $x = \frac{-b}{2a} = \frac{-(-6)}{2(-1)} = -3$

③ $f(-3) = -9 + 18 + 8$
(-3,17)



6. $f(x) = -x^2 + 4x - 6$

① a = -1 b = 4 c = -6

② (0,-6)

② $x = \frac{-b}{2a} = \frac{-4}{2(-1)} = 2$

③ $f(2) = -4 + 8 - 6 = -2$
(2,-2)

