Find x-intercept from Vertex Form

$f(x) = 0$

$f(x) = 2(x-4)^2 - 8$

$0 = 2(x-4)^2 - 8$

$8 = 2(x-4)^2$

$4 = (x-4)^2$

$\pm\sqrt{4} = x - 4$

$4 \pm 2 = x$

$x = 2$

$x = 6$

$f(x) = -3\left(x - \frac{1}{3}\right)^2 + \frac{4}{3}$

$0 = -3()$