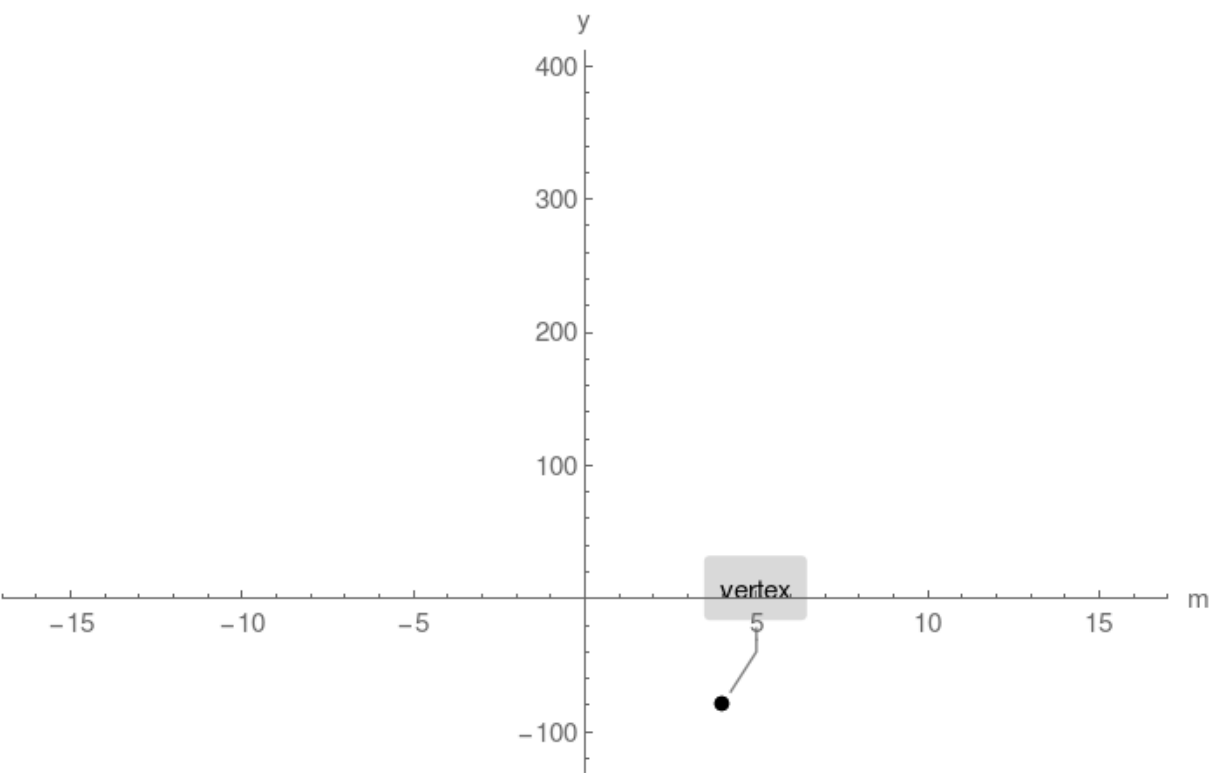# Example 1. 2 horizontal intercepts found

Plot $y(m) = m^2 - 8m - 64$

Step 1.
Compute vertex and plot single point:
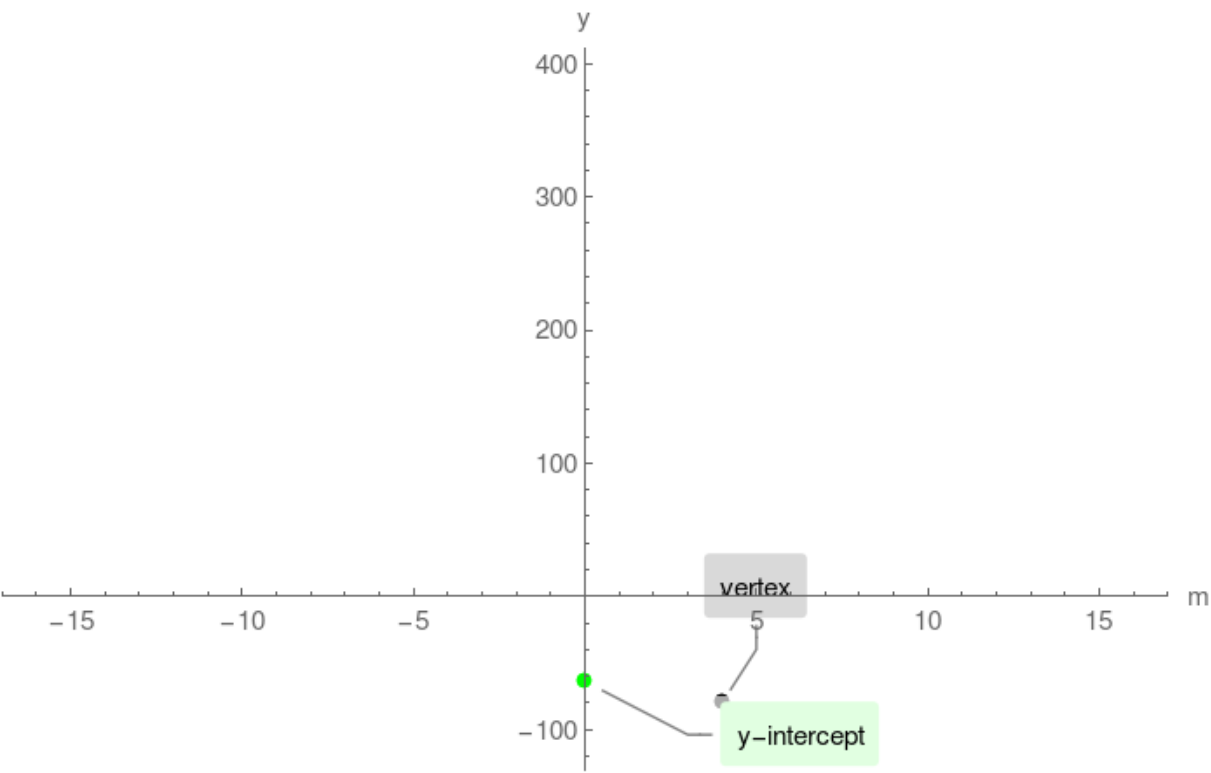vertex = $(4, -80)$

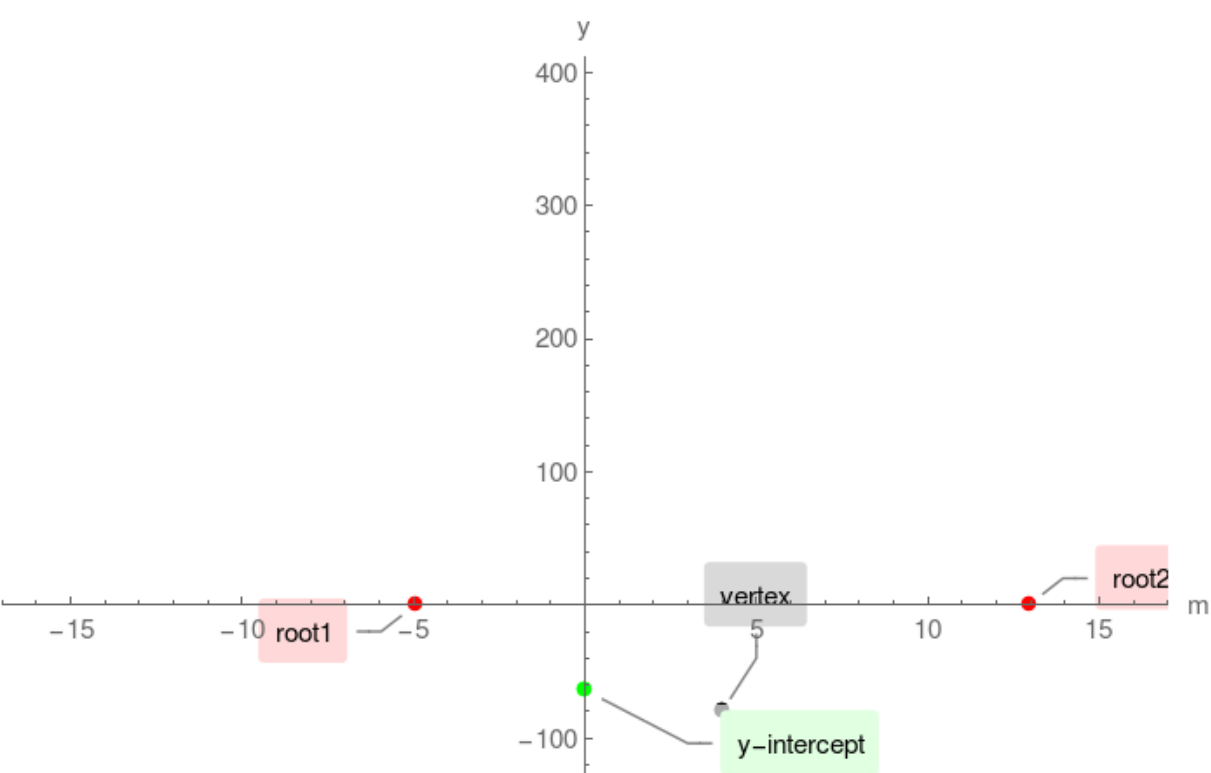**Step 2.**
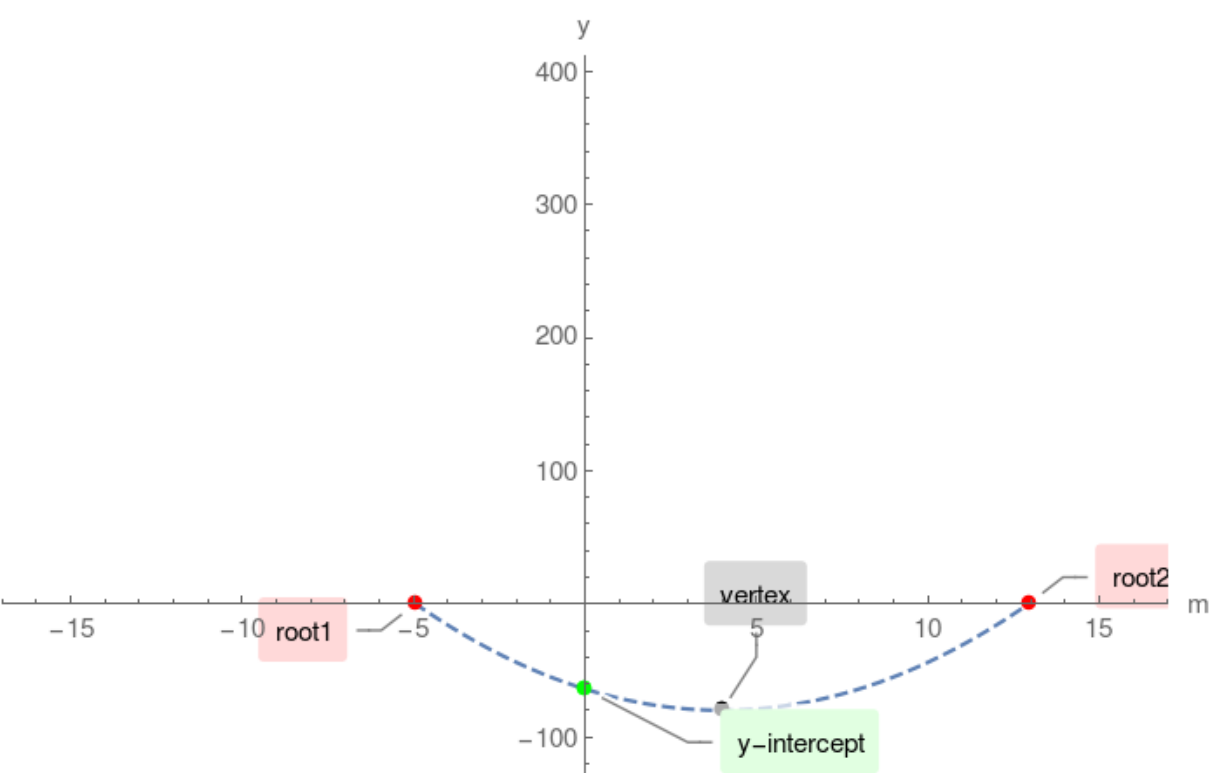Compute y-intercept and plot single point:
y-intercept = $(0, -64)$

Step 3.
Compute m-intercepts by solving $m^2 - 8m - 64 = 0$:
$(4 - 4\sqrt{5}, 0)$, $(4 + 4\sqrt{5}, 0)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts