

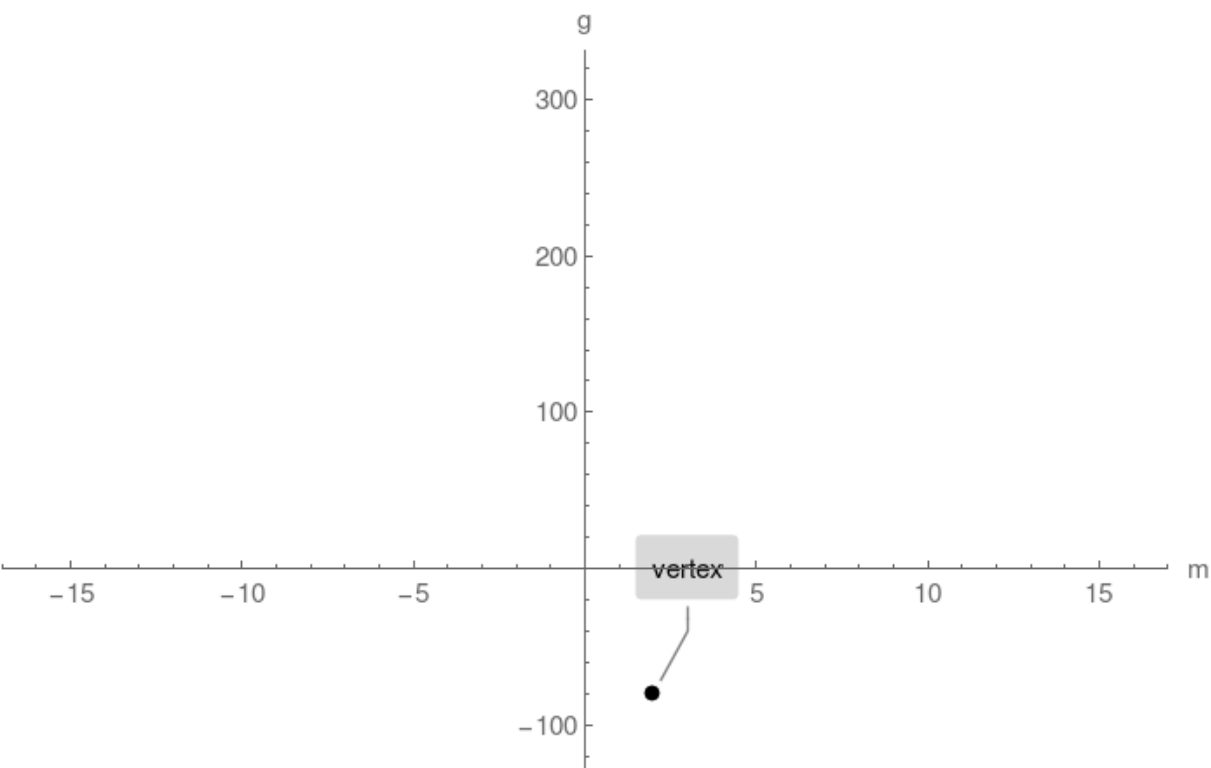
Example 1. 2 horizontal intercepts found

Plot $g(m) = m^2 - 4m - 76$

Step 1.

Compute vertex and plot single point:

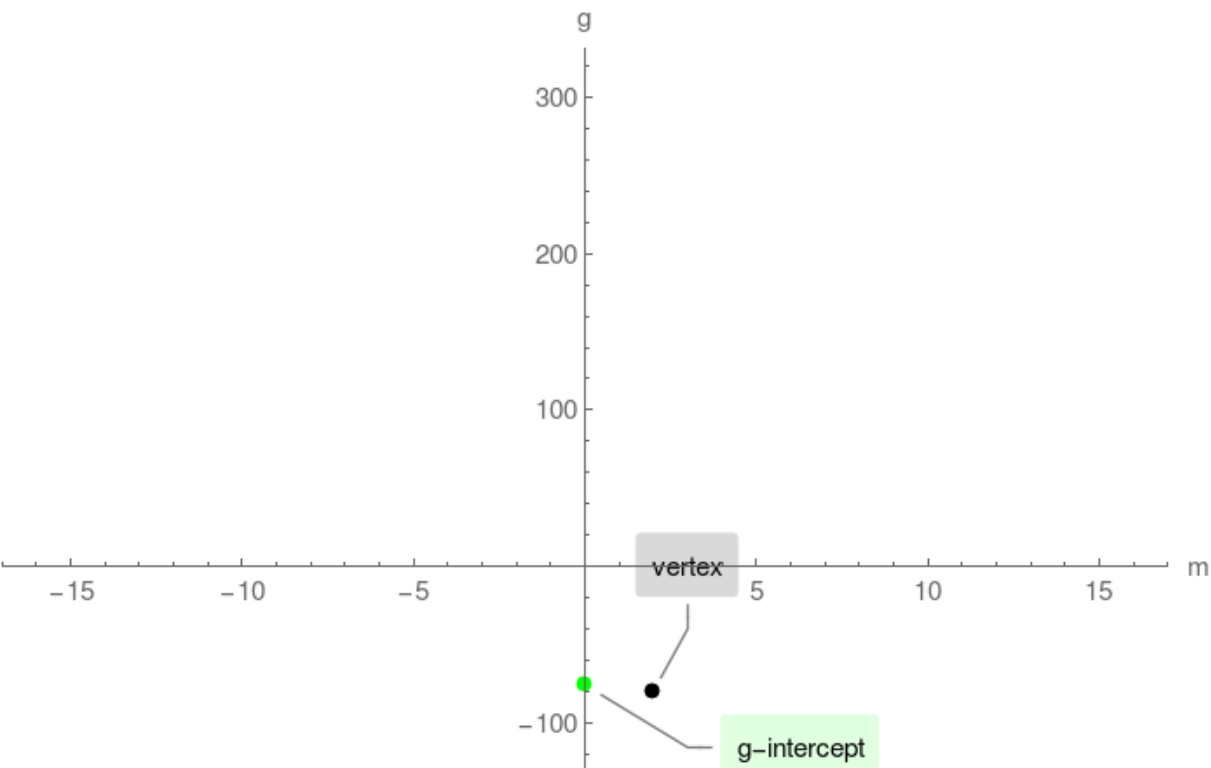
vertex = $(2, -80)$



Step 2.

Compute g-intercept and plot single point:

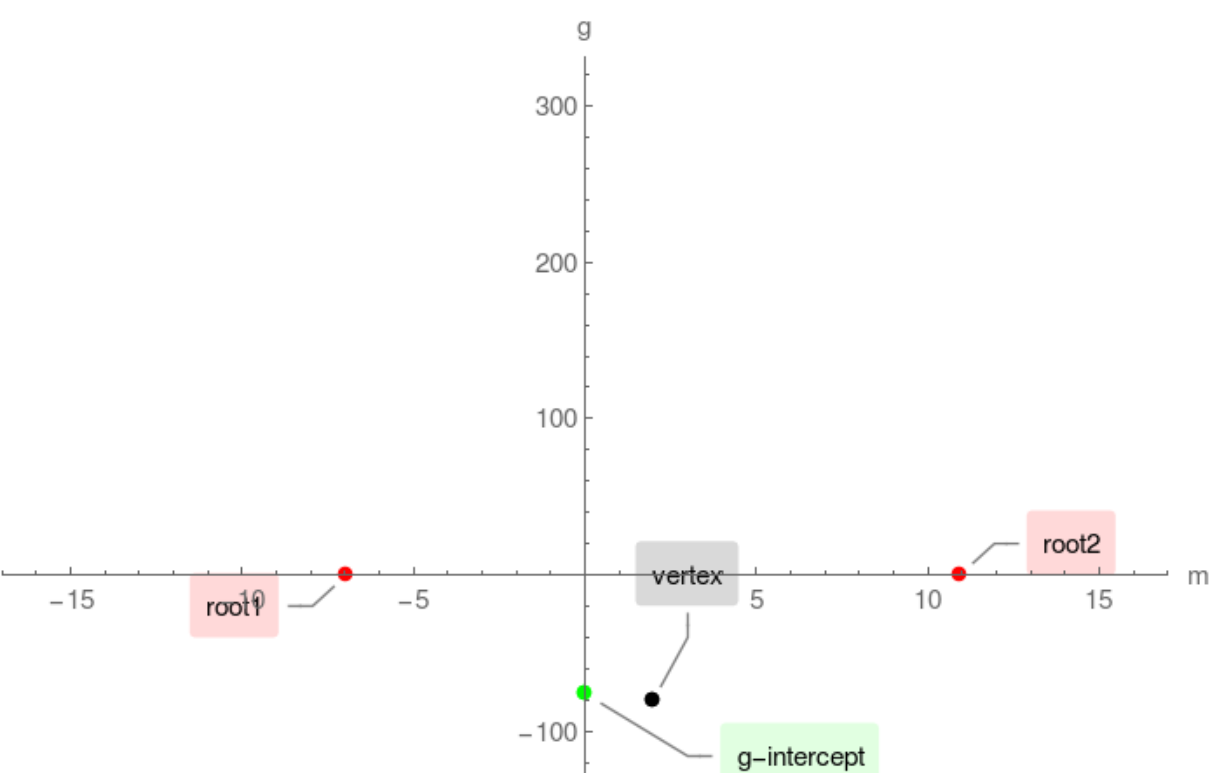
g-intercept = $(0, -76)$



Step 3.

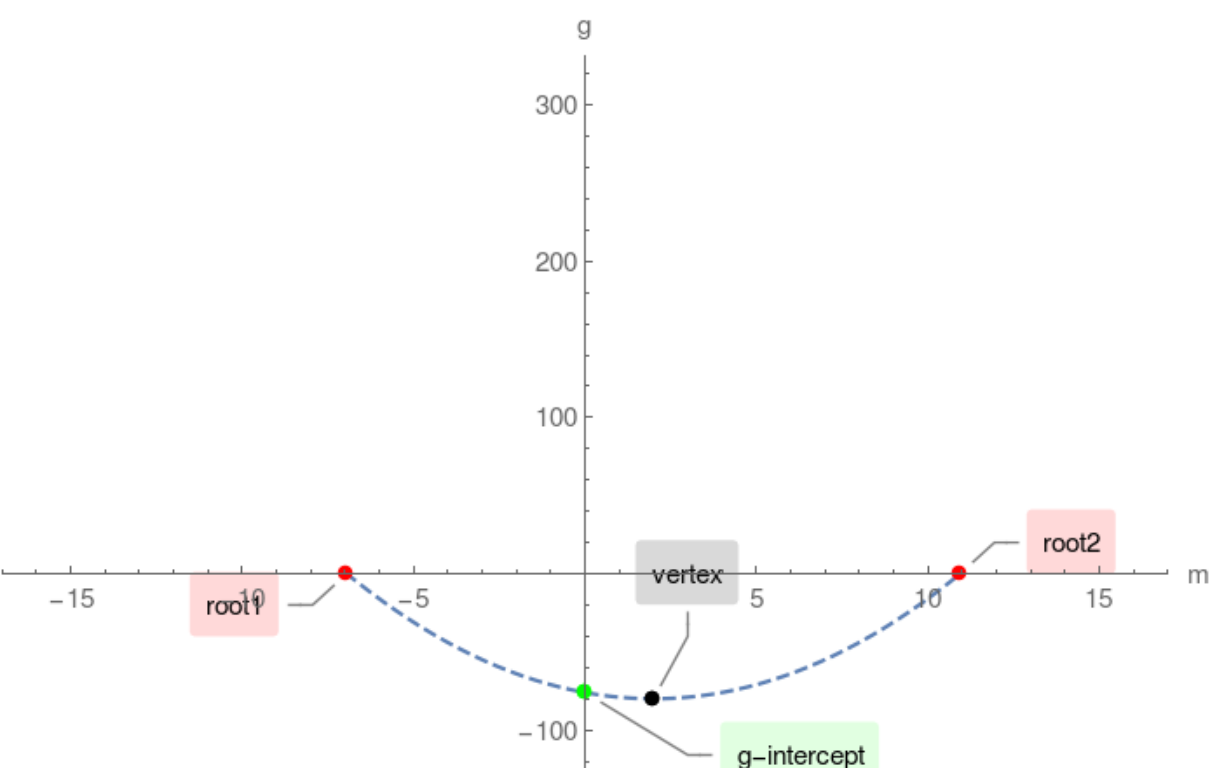
Compute m-intercepts by solving $m^2 - 4m - 76 = 0$:

$(2 - 4\sqrt{5}, 0)$, $(2 + 4\sqrt{5}, 0)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

