

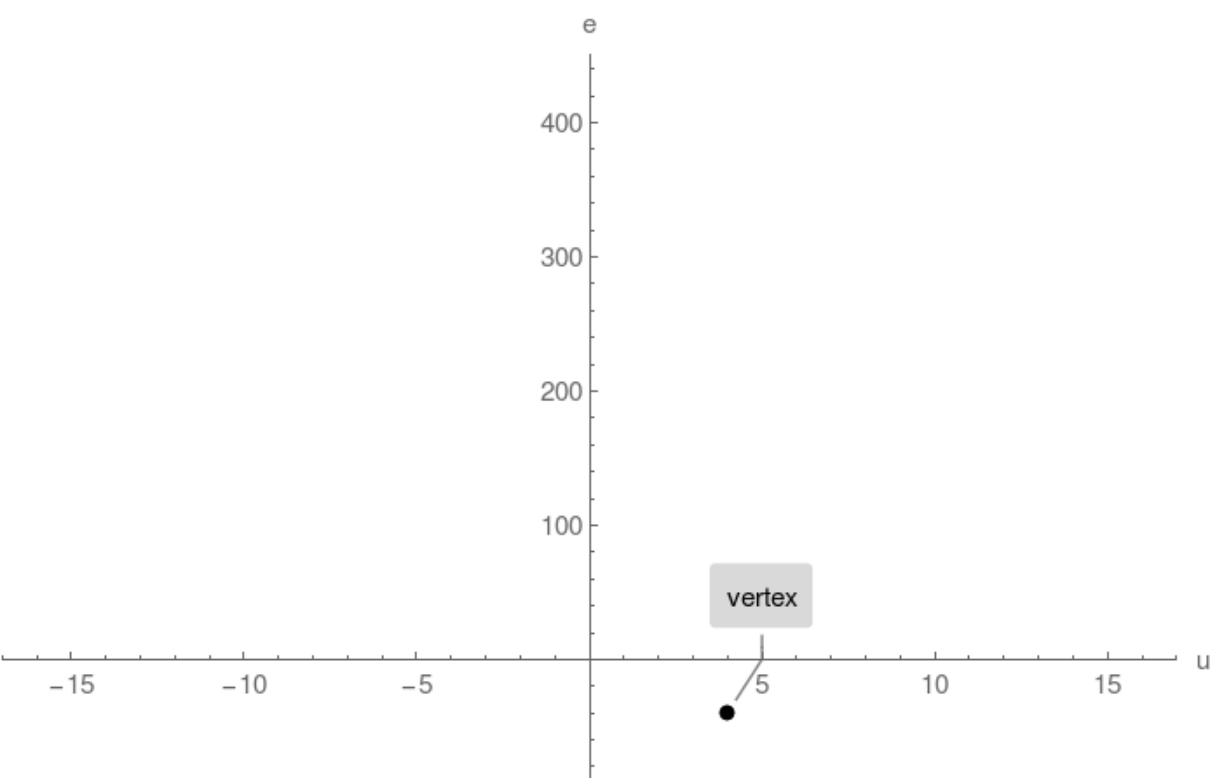
Example 1. 2 horizontal intercepts found

Plot $e(u) = u^2 - 8u - 24$

Step 1.

Compute vertex and plot single point:

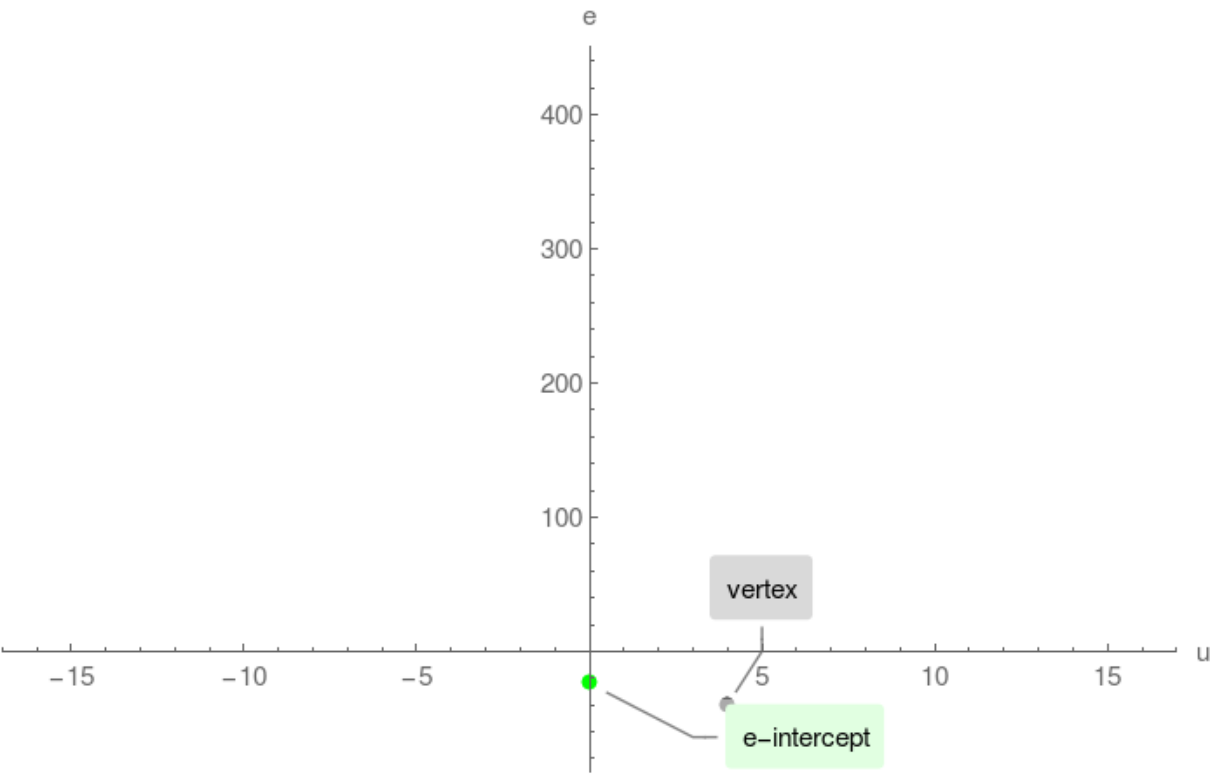
vertex = $(4, -40)$



Step 2.

Compute e -intercept and plot single point:

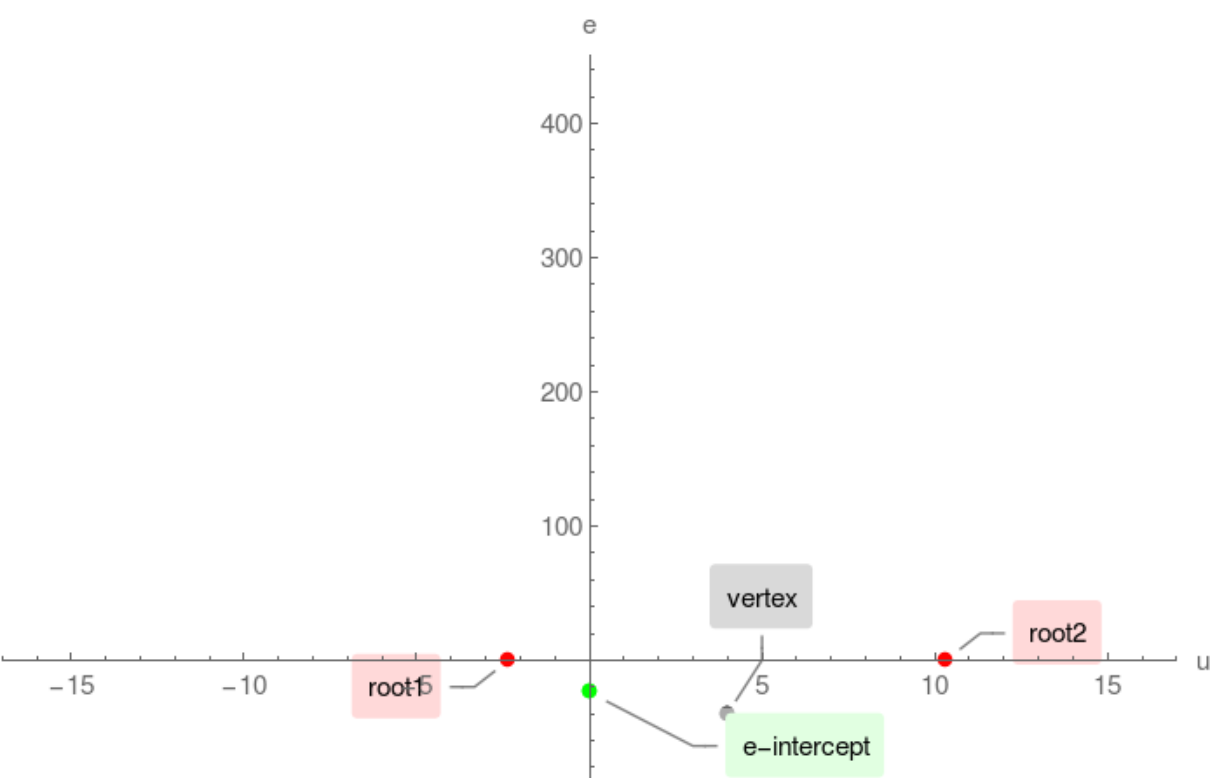
e -intercept = $(0, -24)$



Step 3.

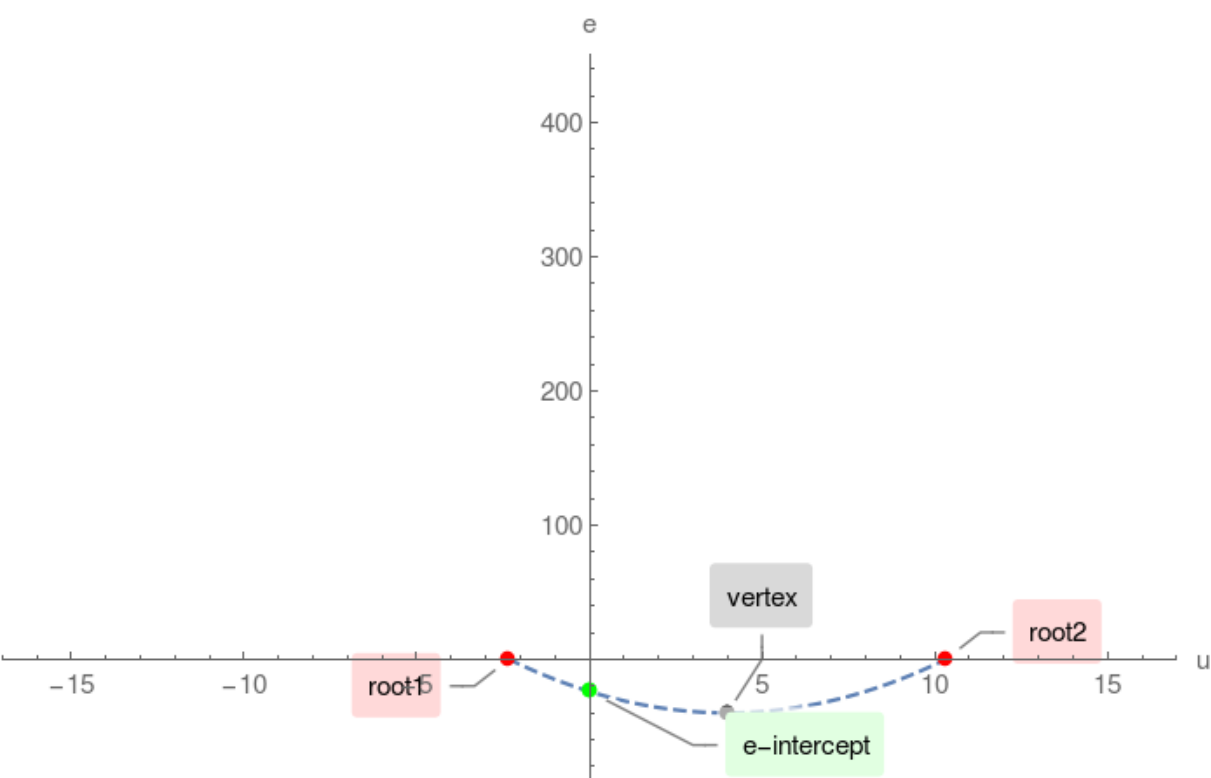
Compute u -intercepts by solving $u^2 - 8u - 24 = 0$:

$(4 - 2\sqrt{10}, 0)$, $(4 + 2\sqrt{10}, 0)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

