

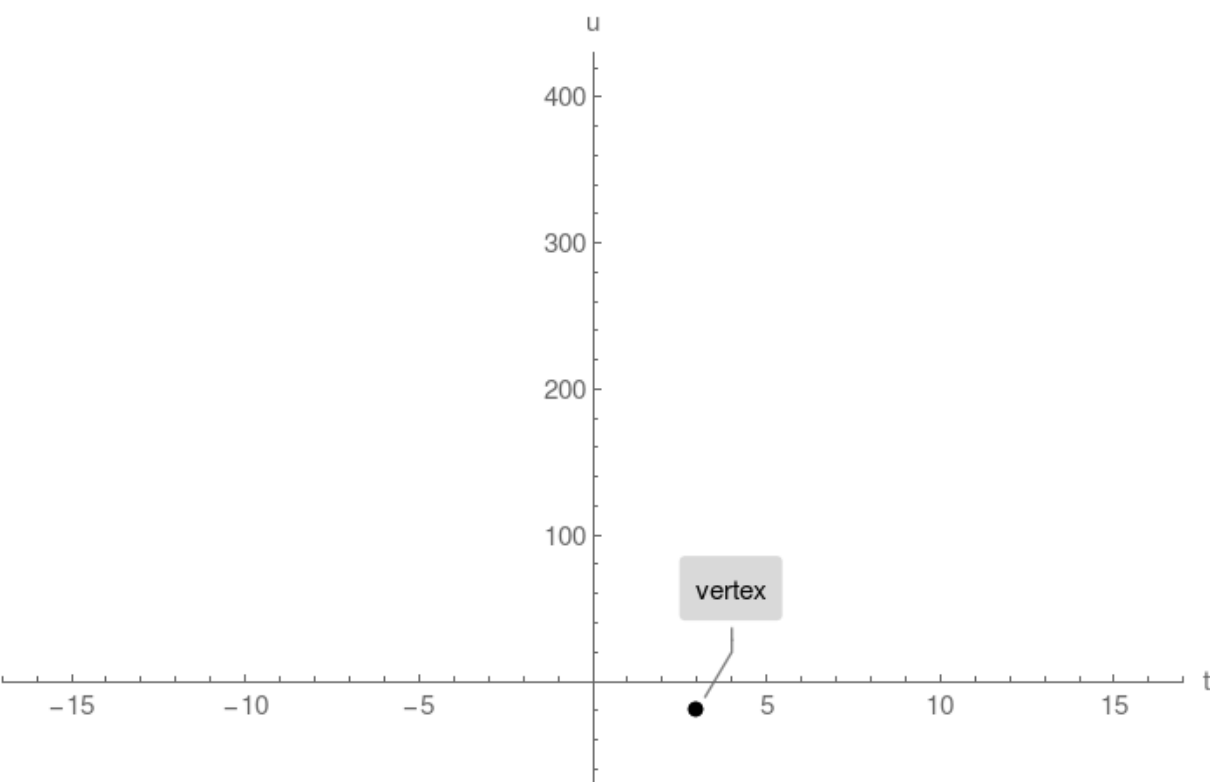
Example 1. 2 horizontal intercepts found

Plot $u(t) = t^2 - 6t - 11$

Step 1.

Compute vertex and plot single point:

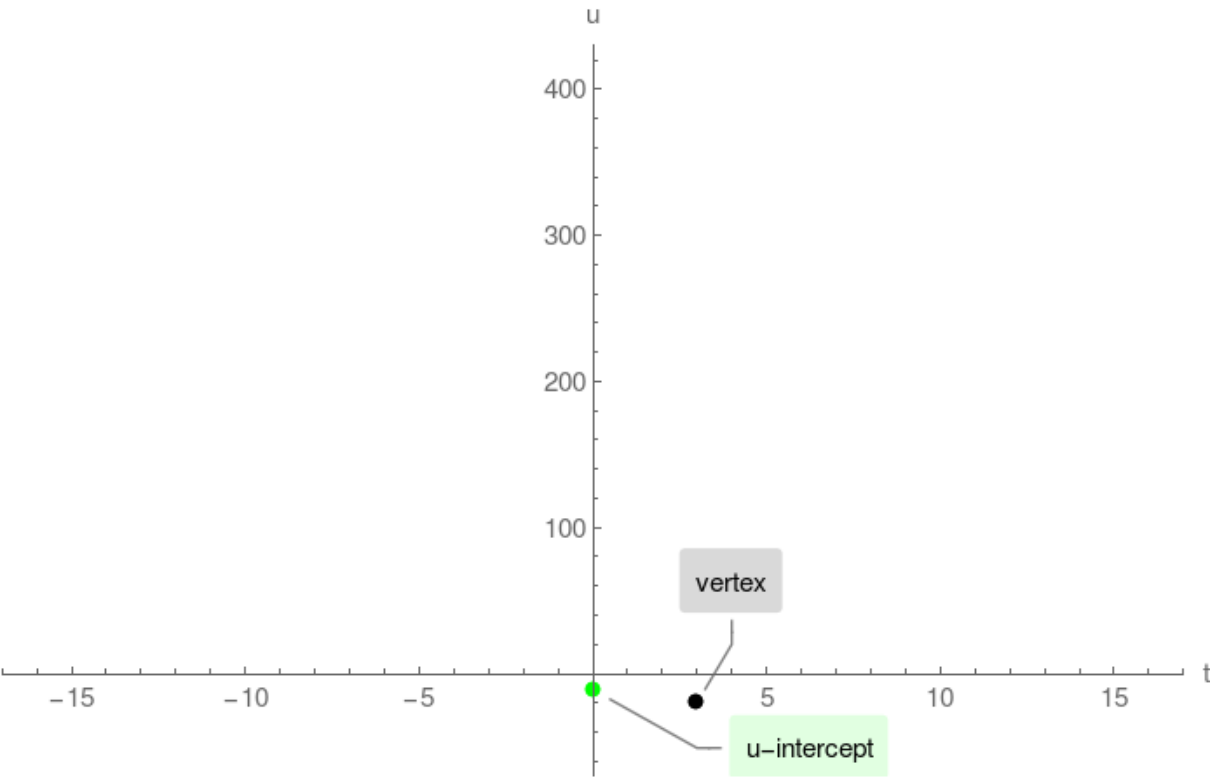
vertex = $(3, -20)$



Step 2.

Compute u-intercept and plot single point:

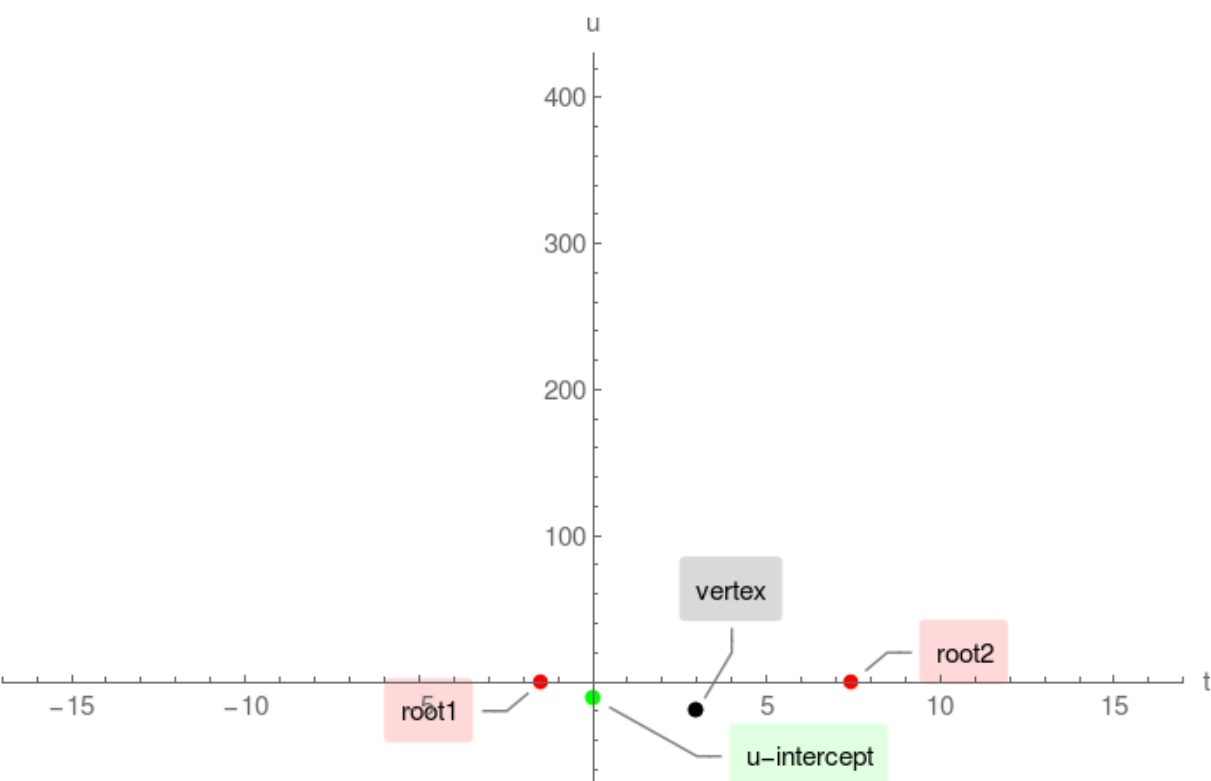
u-intercept = $(0, -11)$



Step 3.

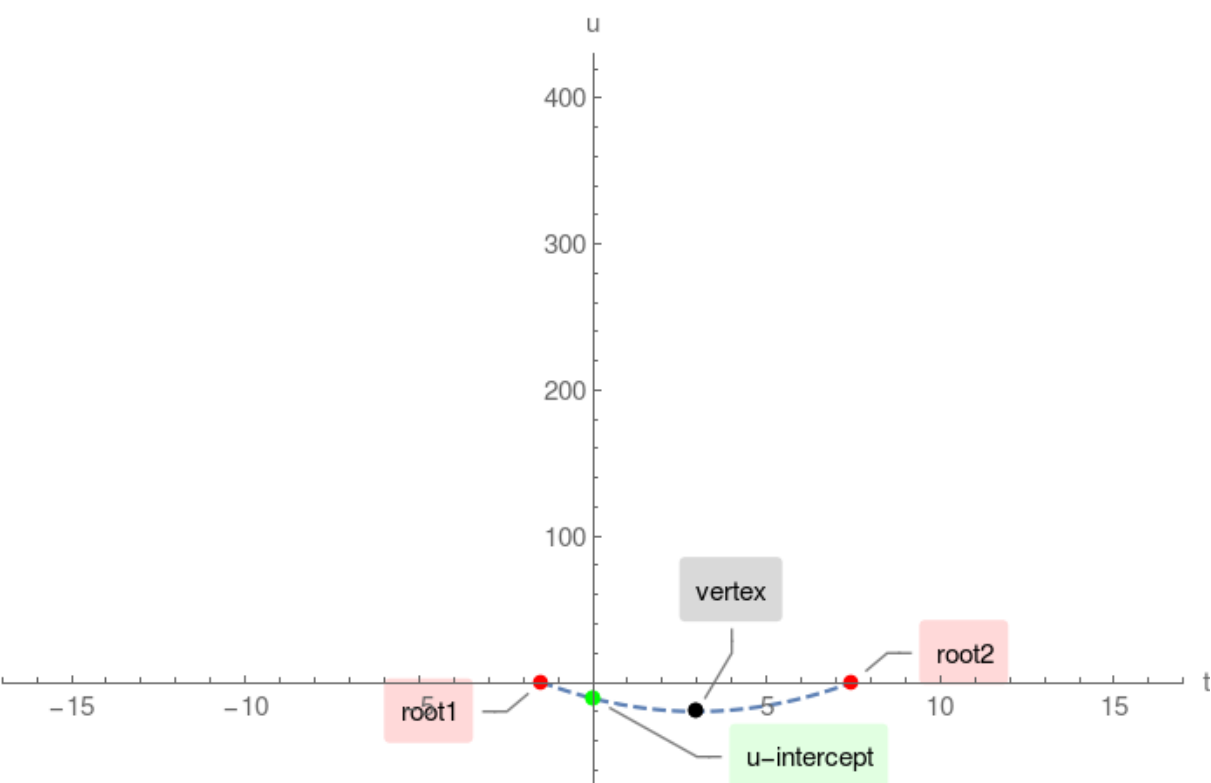
Compute t-intercepts by solving $t^2 - 6t - 11 = 0$:

$(3 - 2\sqrt{5}, 0)$, $(3 + 2\sqrt{5}, 0)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

