

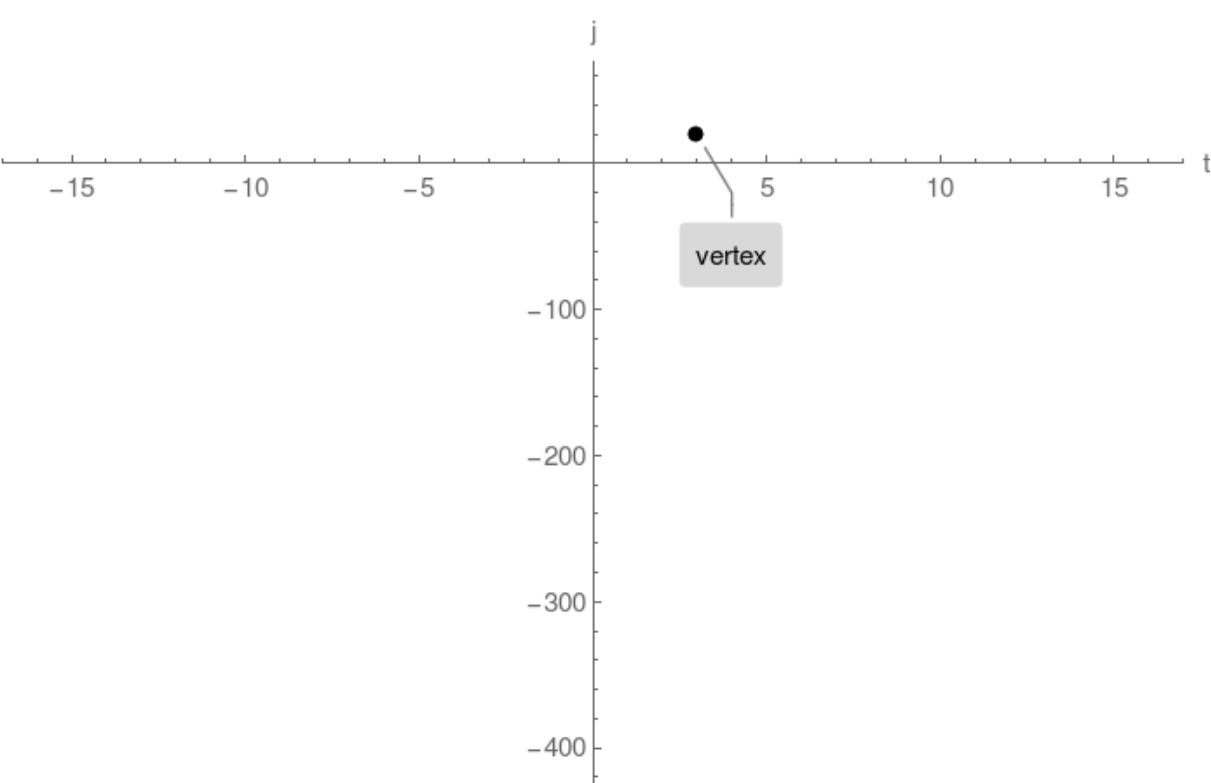
Example 1. 2 horizontal intercepts found

Plot $j(t) = -t^2 + 6t + 11$

Step 1.

Compute vertex and plot single point:

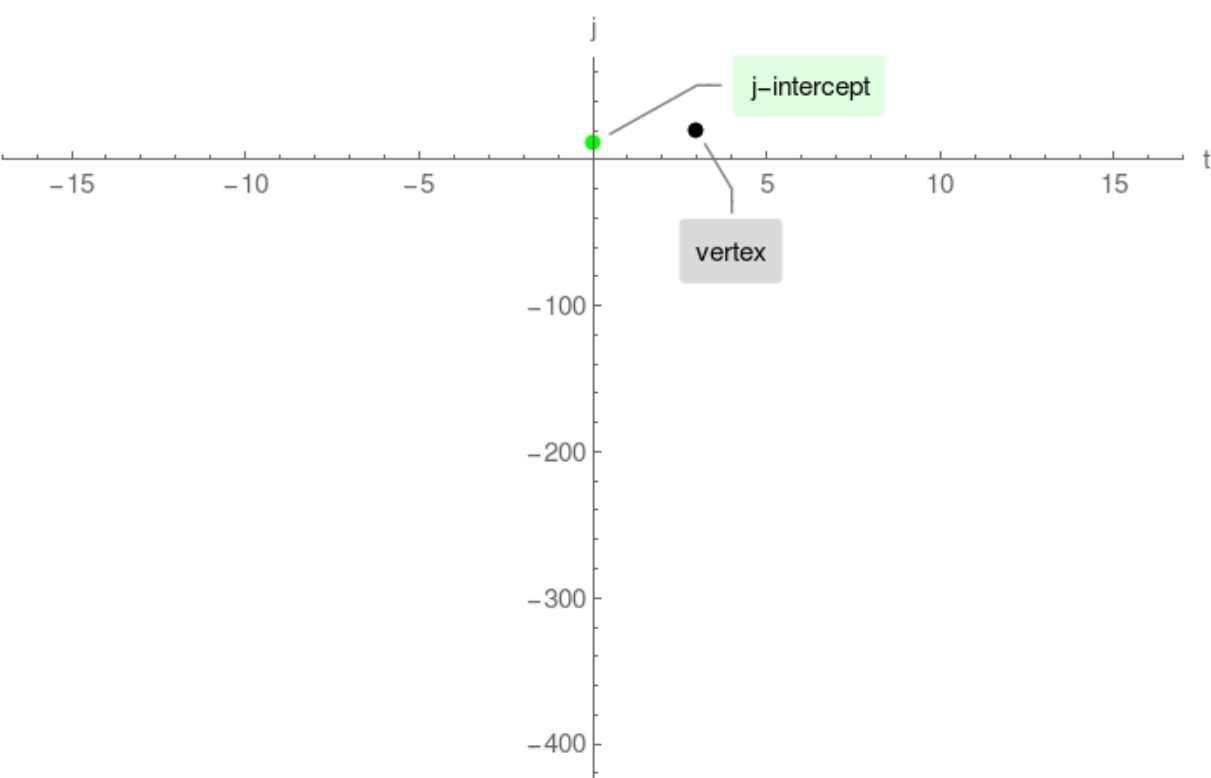
vertex = (3, 20)



Step 2.

Compute j-intercept and plot single point:

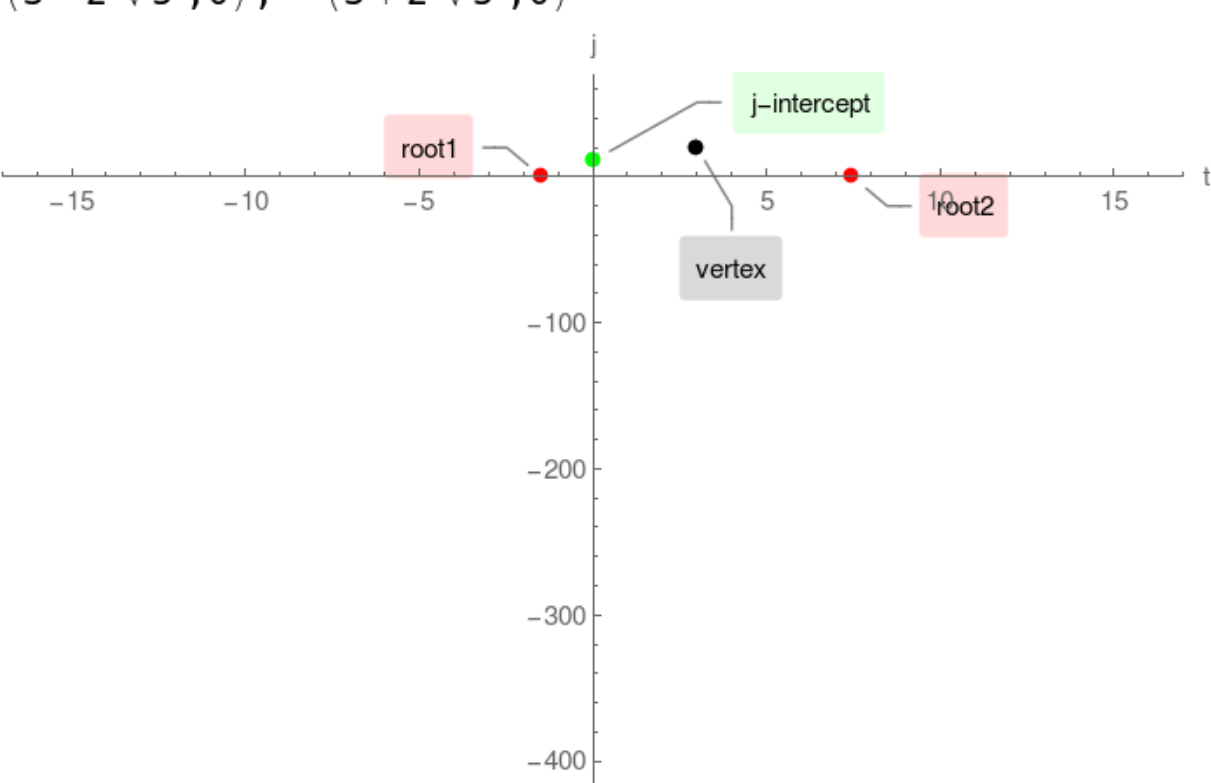
j-intercept = (0, 11)



Step 3.

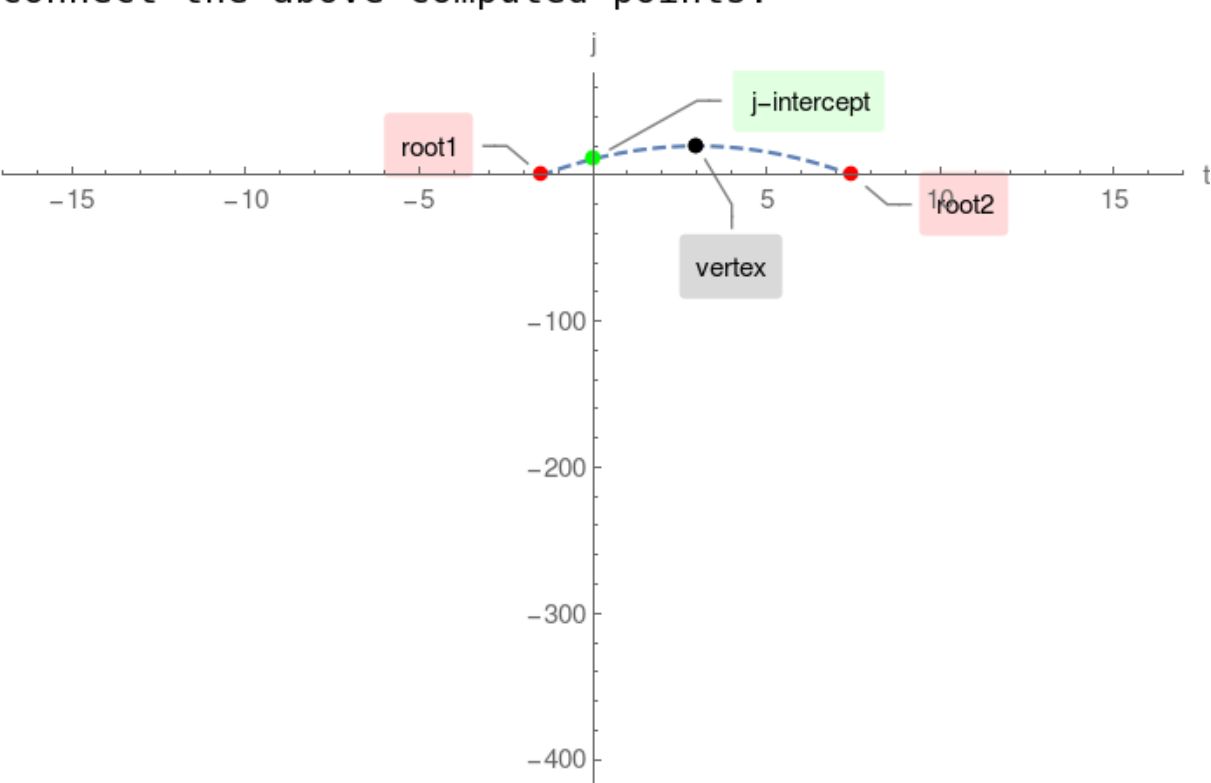
Compute t-intercepts by solving $-t^2 + 6t + 11 = 0$:

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



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

