

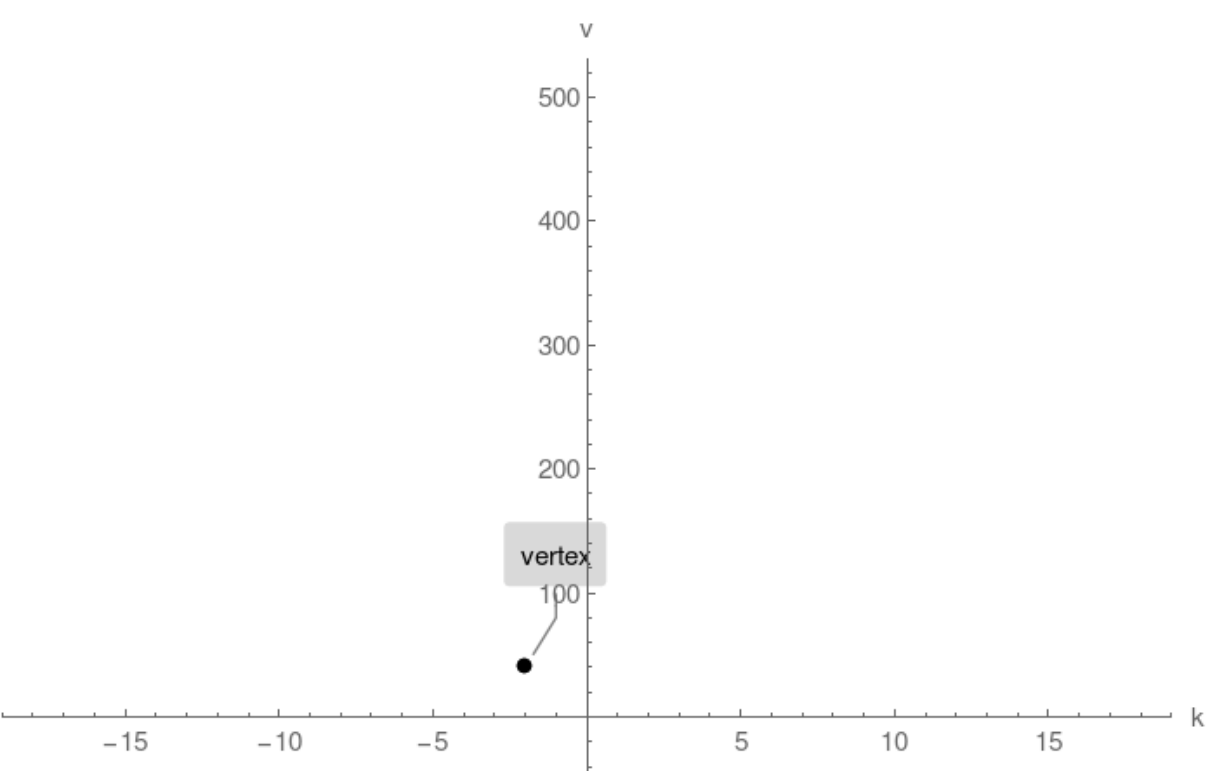
Example 2. No horizontal intercepts found

Plot $v(k) = k^2 + 4k + 44$

Step 1.

Compute vertex and plot single point:

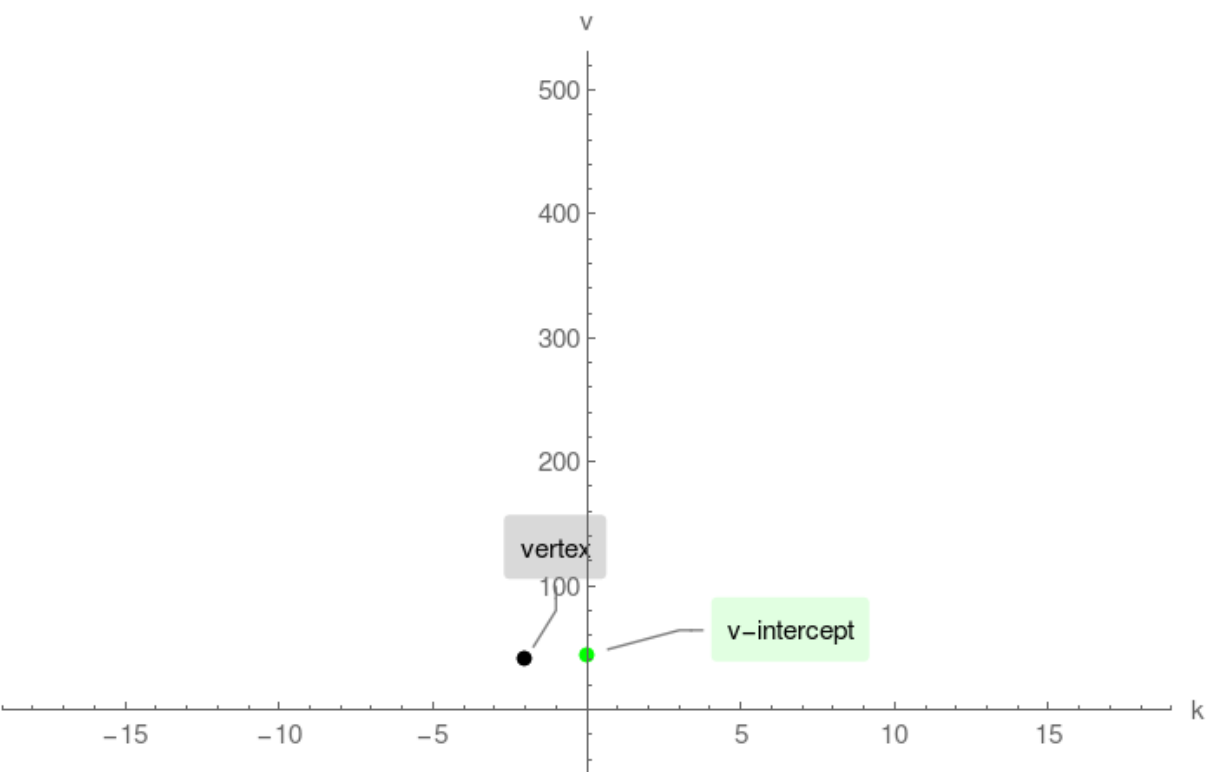
vertex = $(-2, 40)$



Step 2.

Compute v-intercept and plot single point:

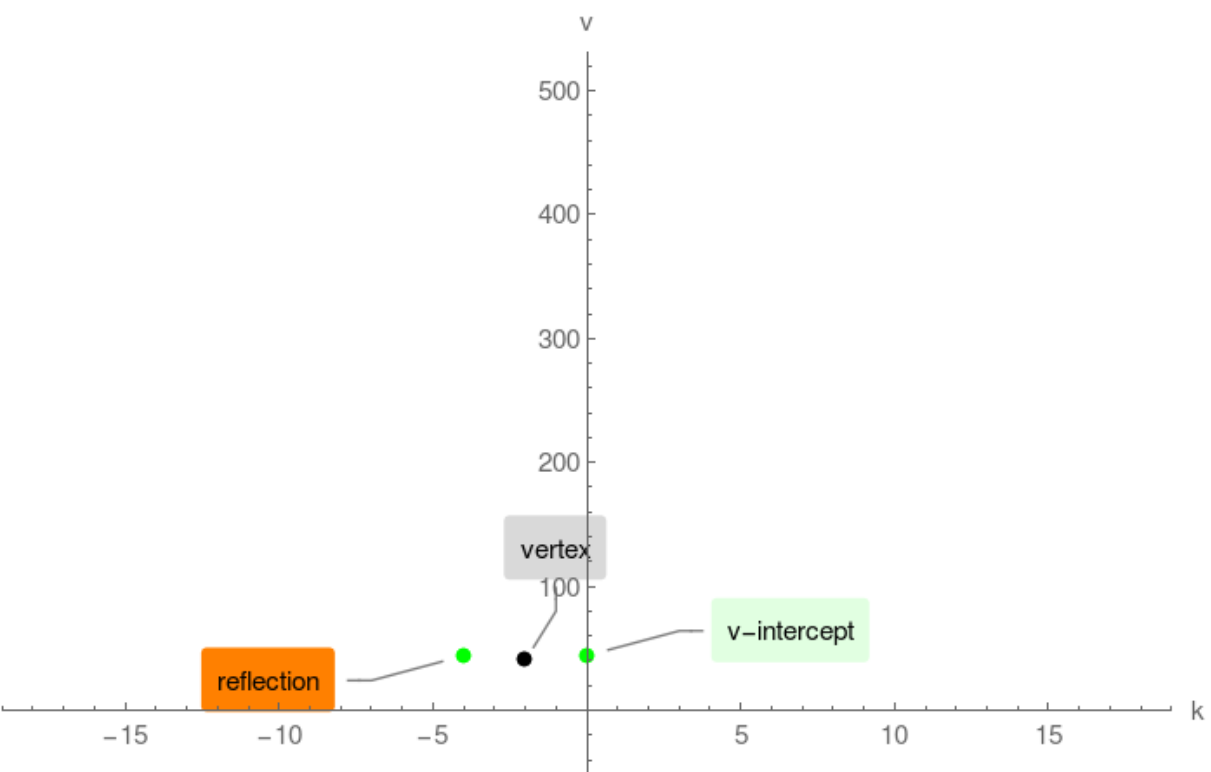
v-intercept = $(0, 44)$



Step 3.

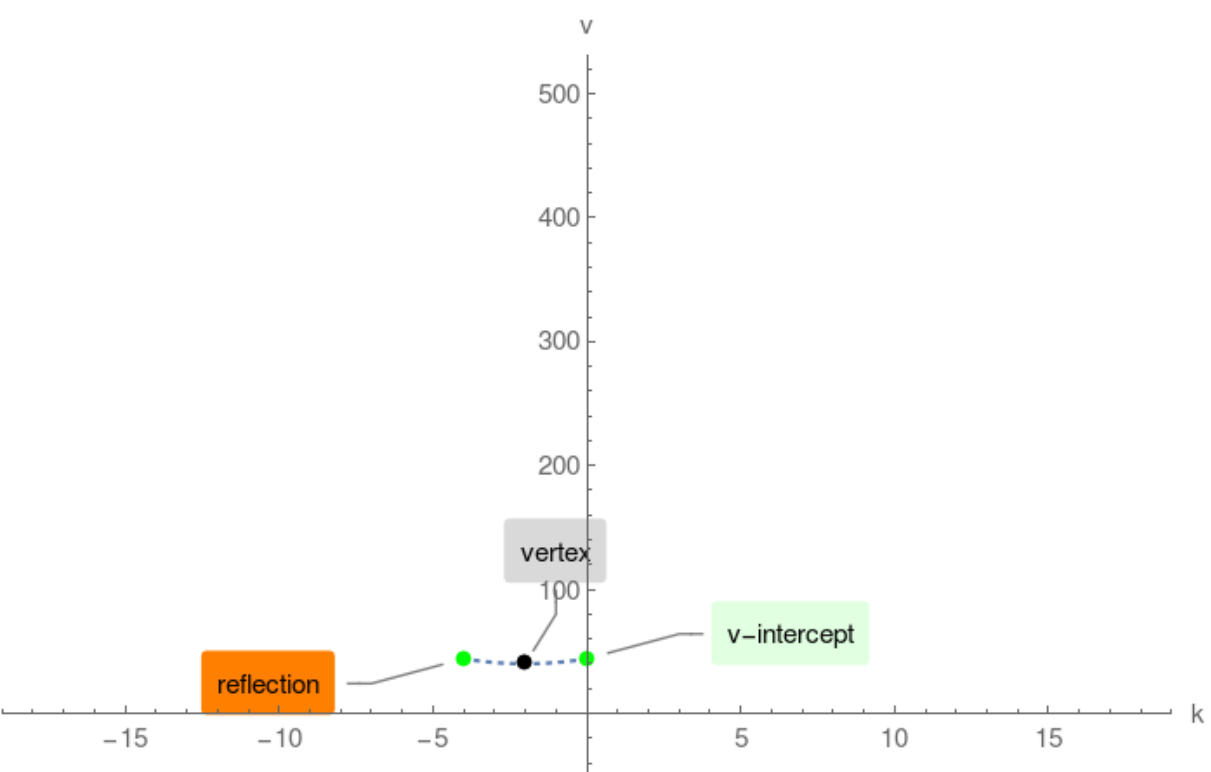
Compute v-intercept reflected against vertex,

reflection = $(-4, 44)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

