

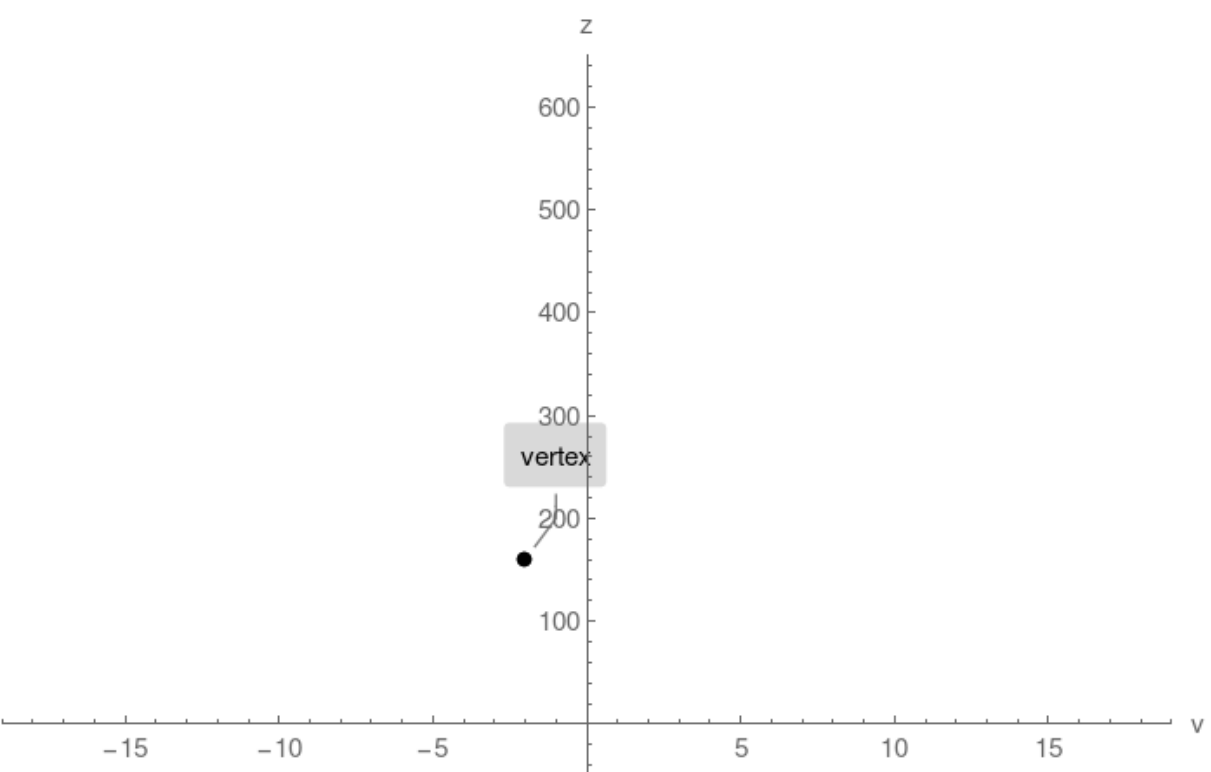
Example 2. No horizontal intercepts found

Plot $z(v) = v^2 + 4v + 164$

Step 1.

Compute vertex and plot single point:

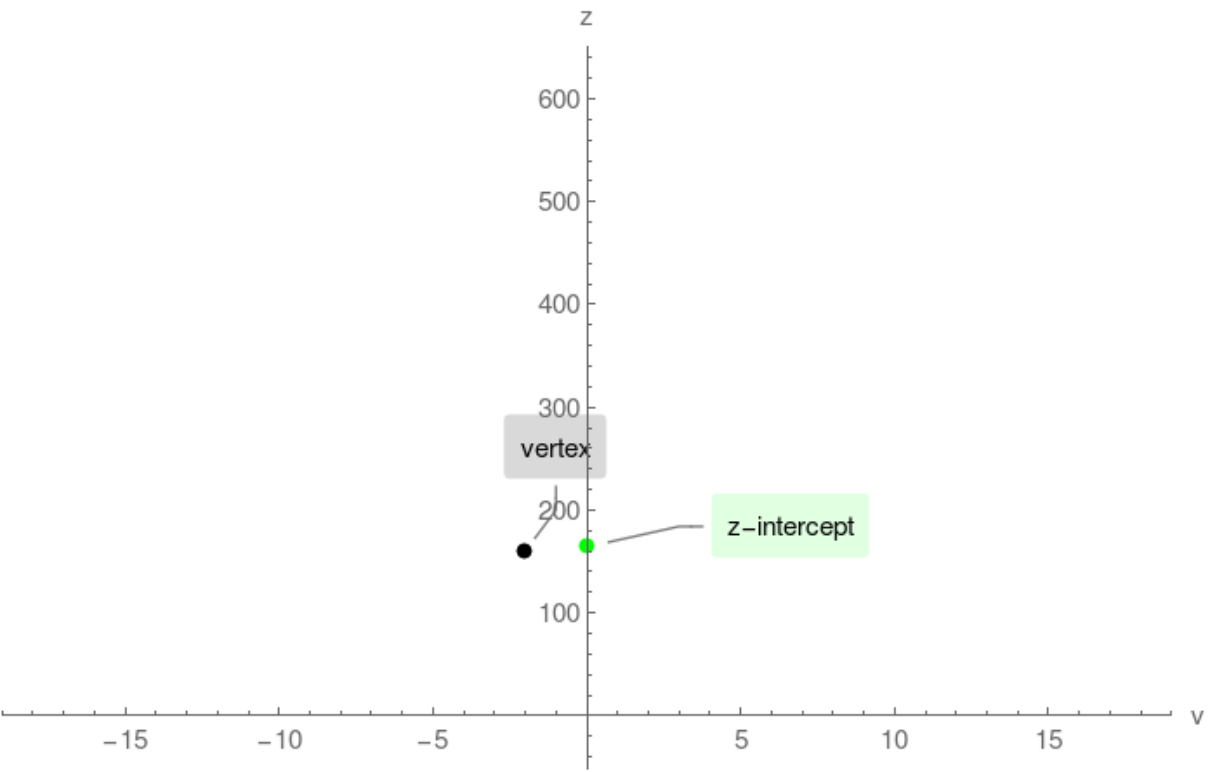
vertex = $(-2, 160)$



Step 2.

Compute z-intercept and plot single point:

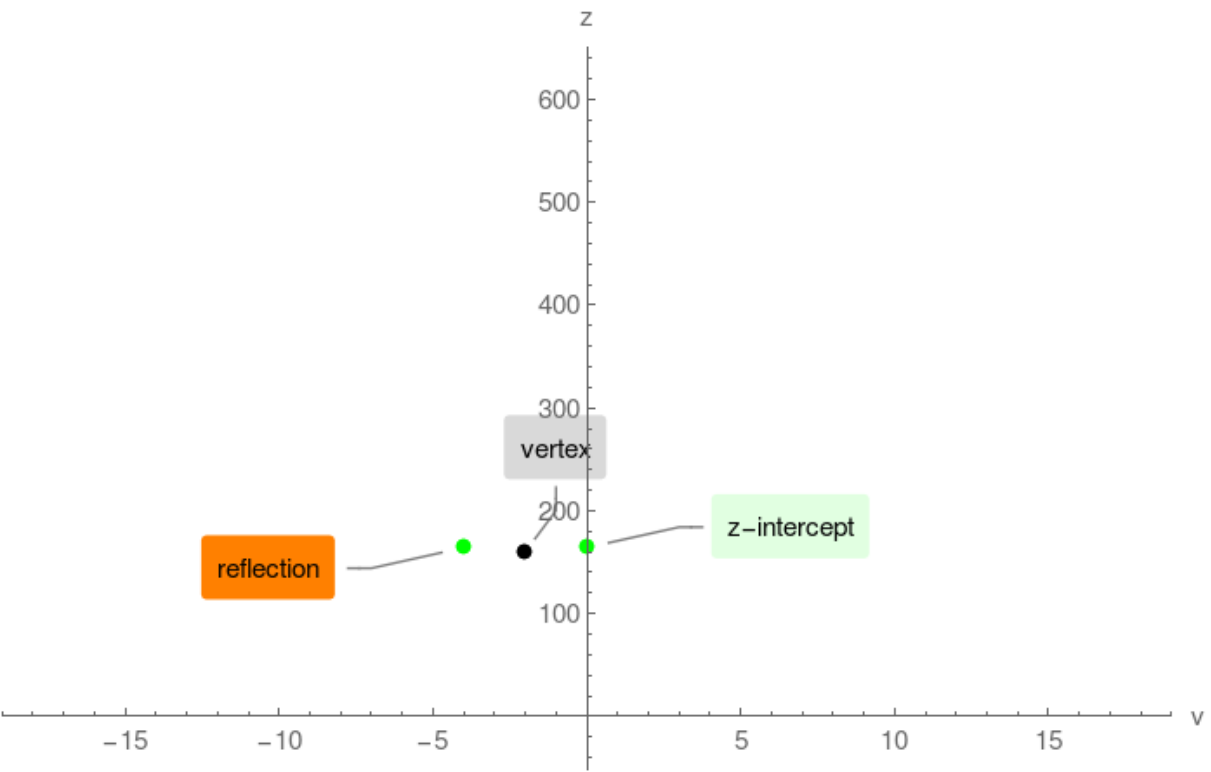
z-intercept = $(0, 164)$



Step 3.

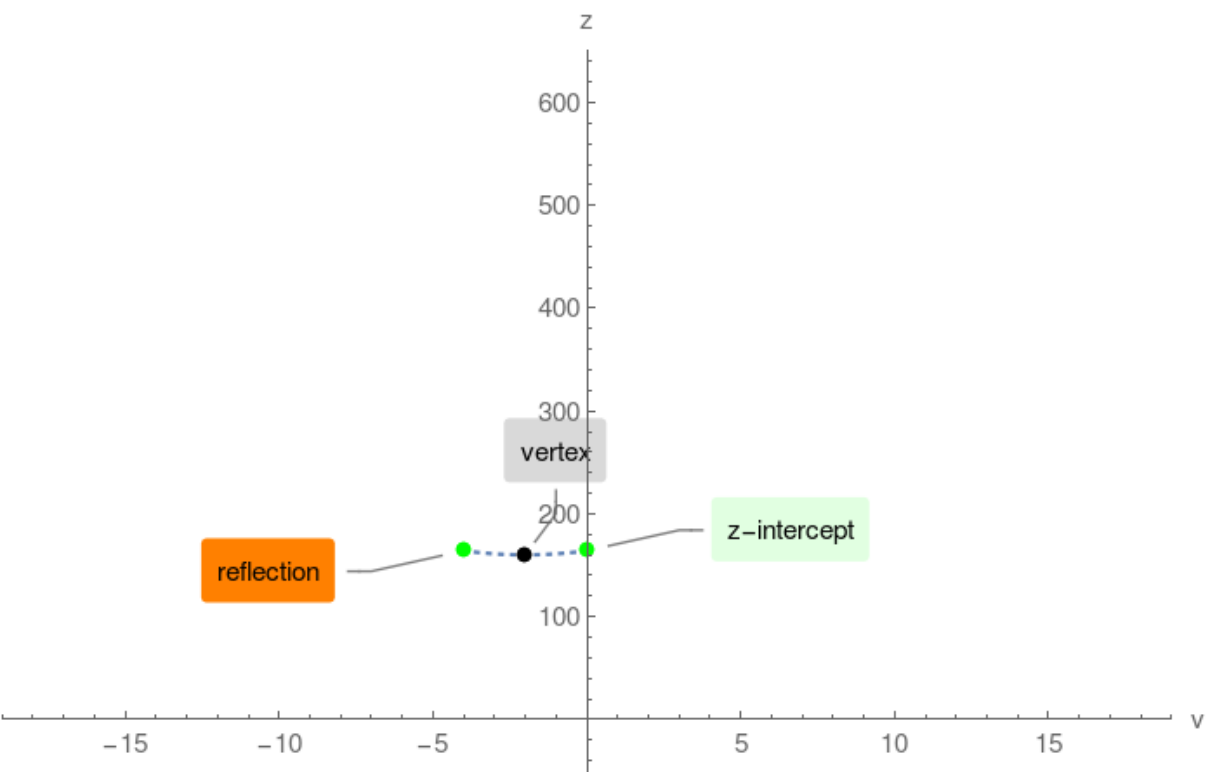
Compute z-intercept reflected against vertex,

reflection = $(-4, 164)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

