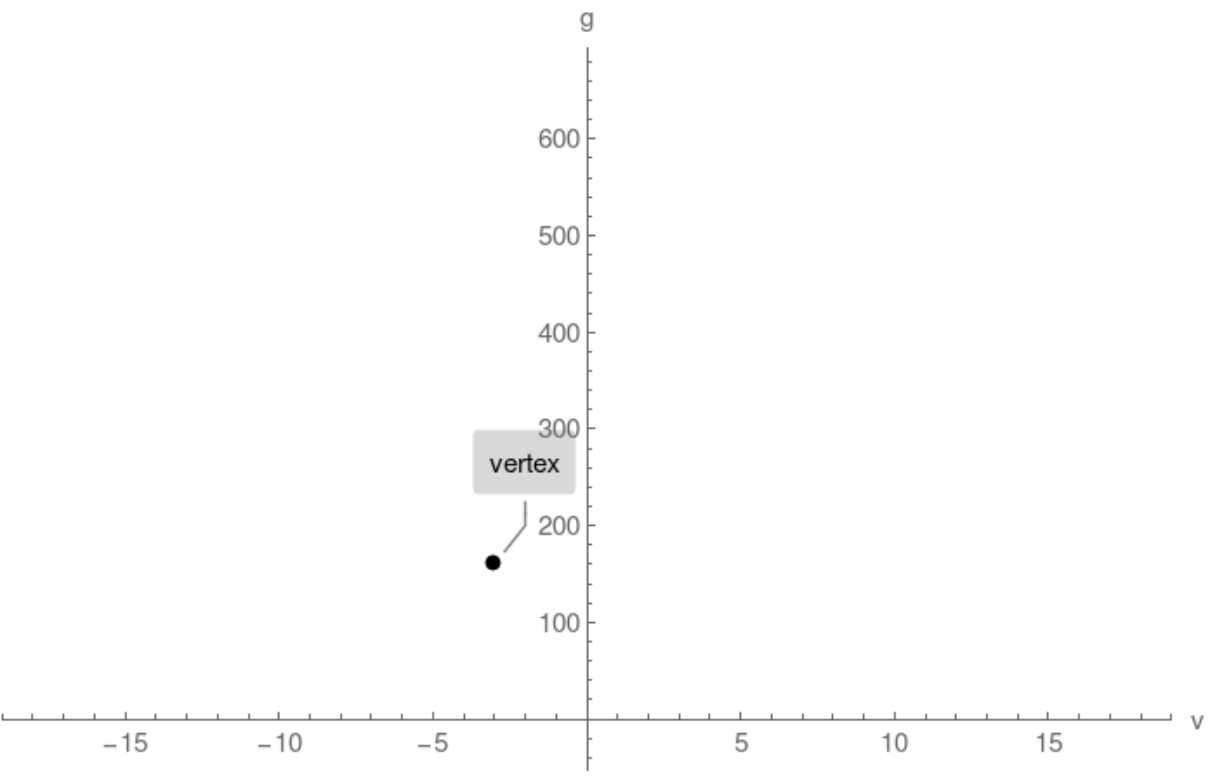
Example 2. No horizontal intercepts found

Plot $g(v) = v^2 + 6v + 169$

Step 1.

Compute vertex and plot single point:

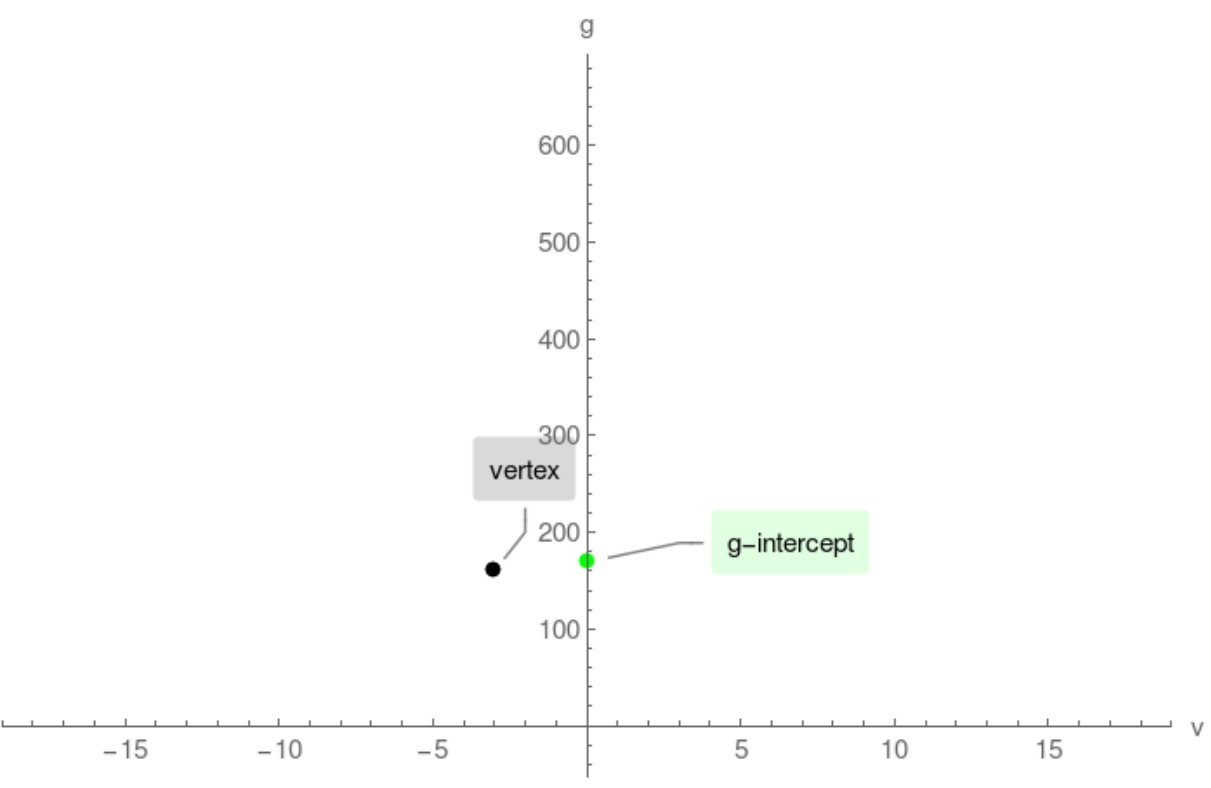
vertex $= (-3, 160)$



Step 2.

Compute g-intercept and plot single point:

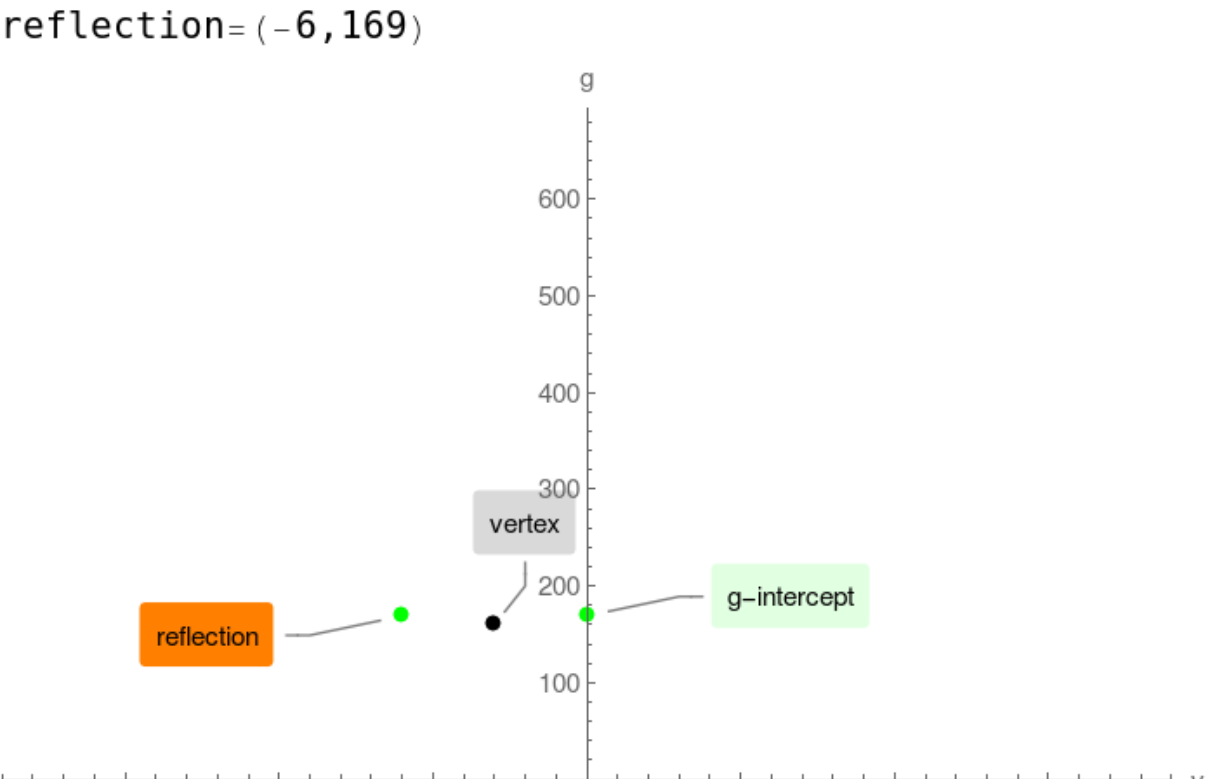
g-intercept $= (0, 169)$



Step 3.

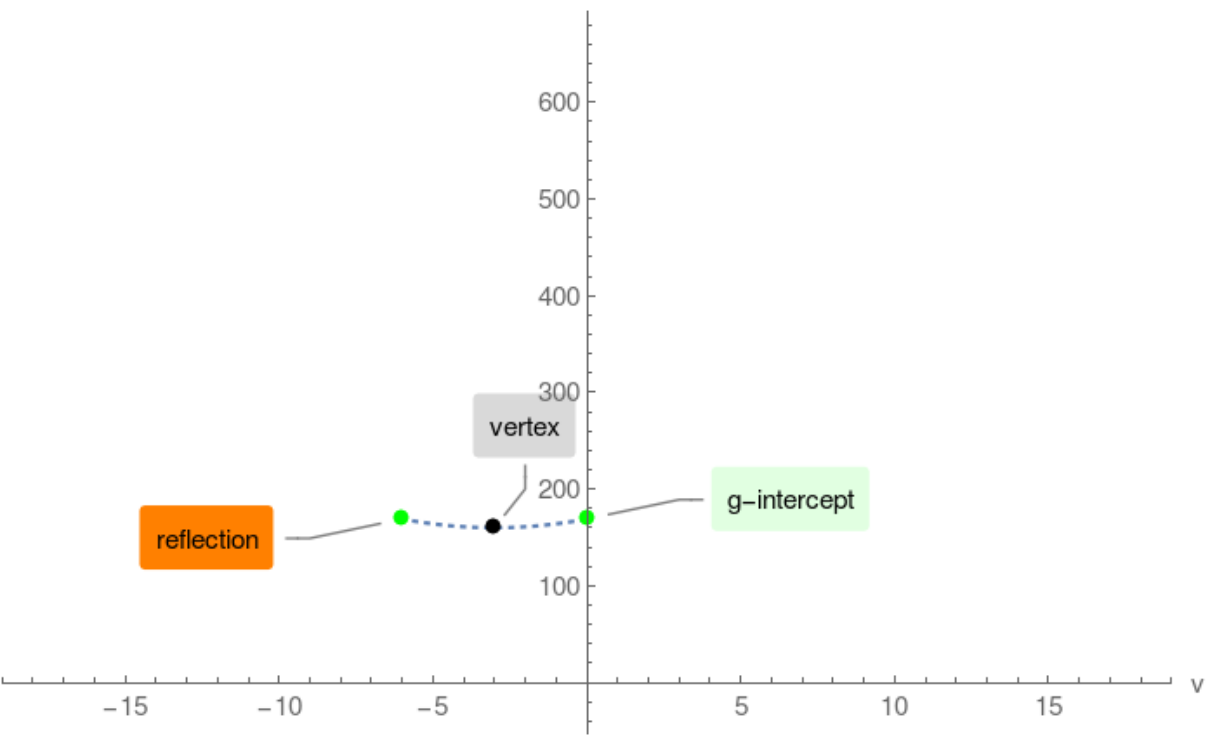
Compute g-intercept reflected against vertex,

reflection $= (-6, 169)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts