Example 2. No horizontal intercepts found
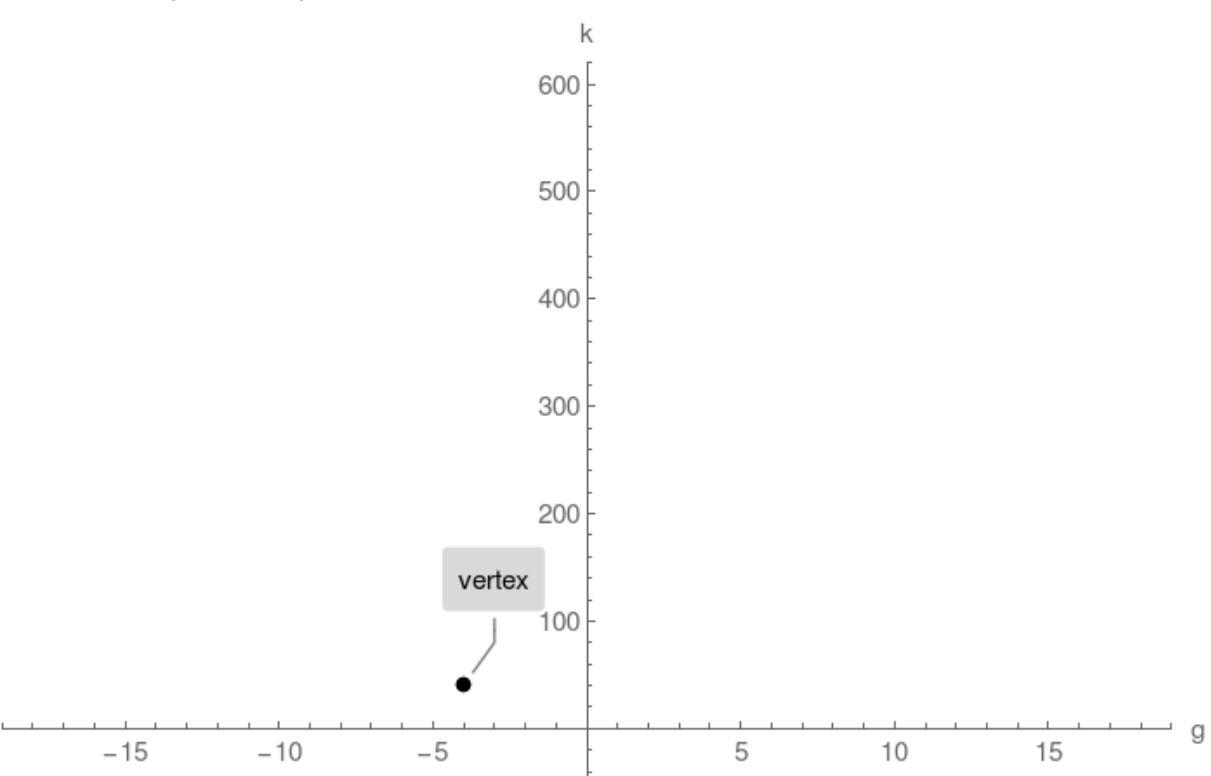
Plot $k(g) = g^2 + 8g + 56$

Step 1.
Compute vertex and plot single point:
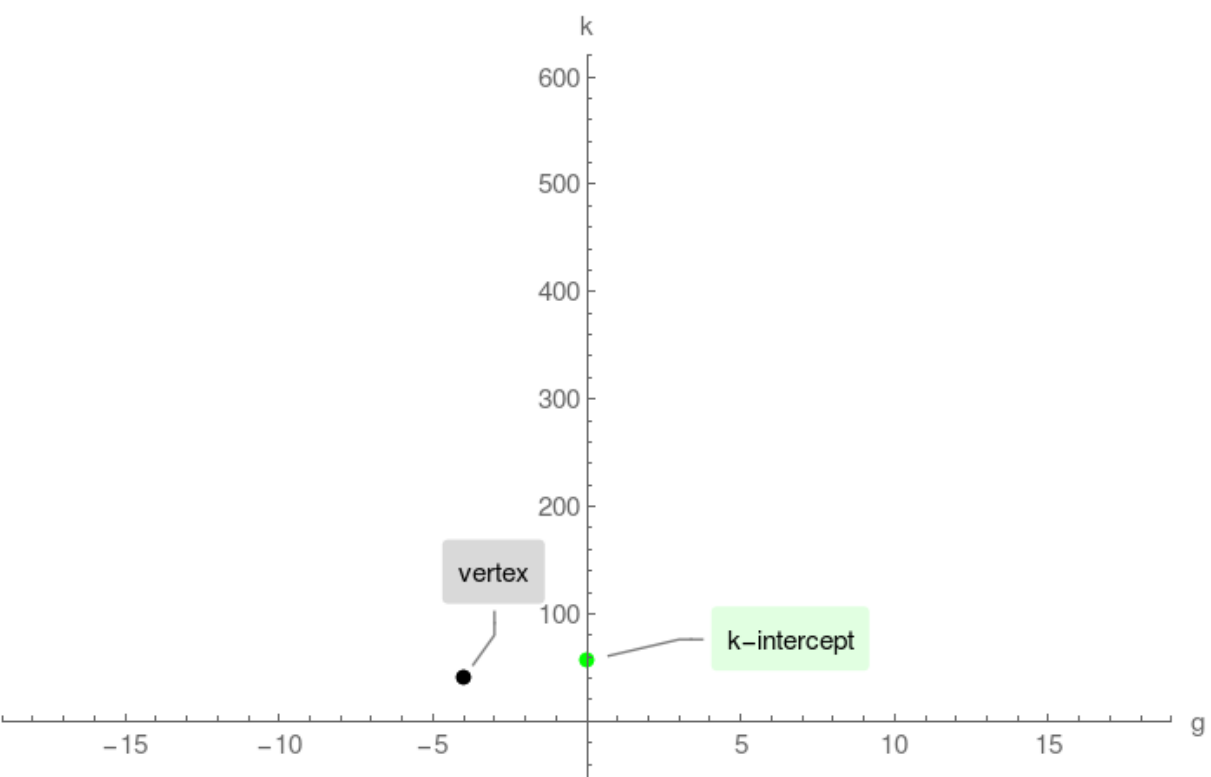vertex = $(-4, 40)$

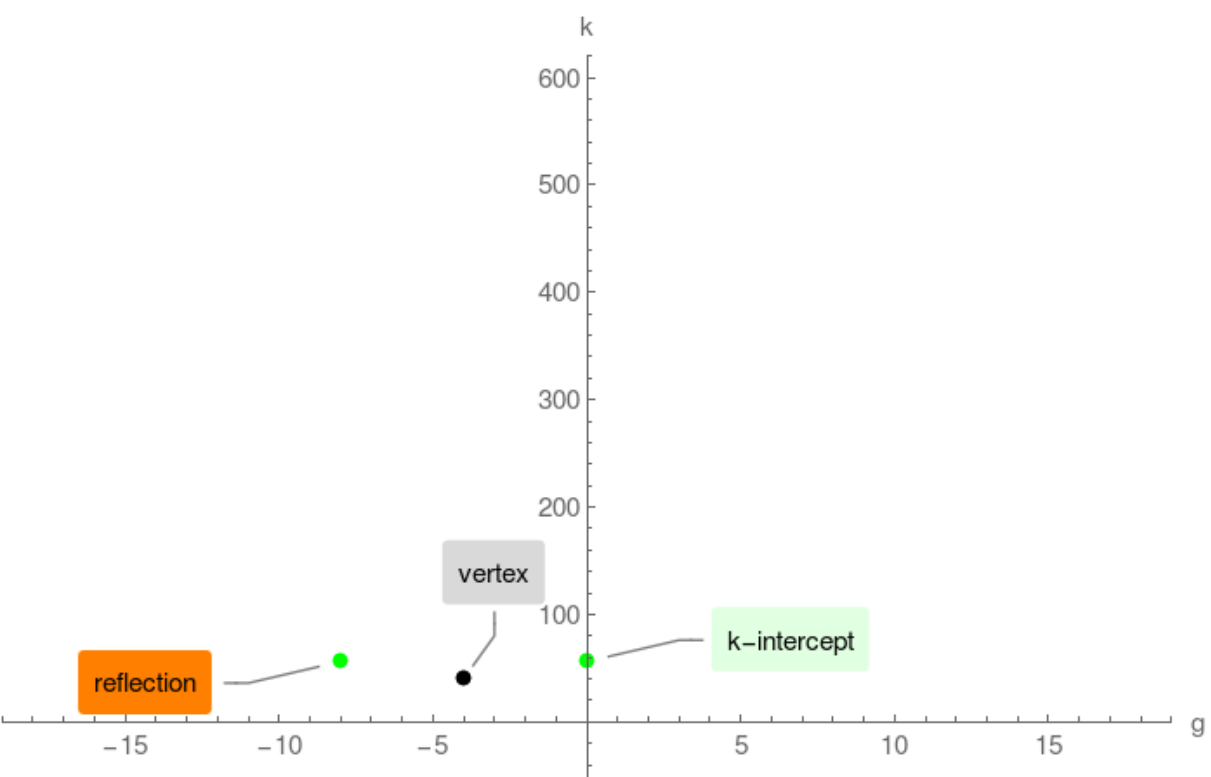**Step 2.**
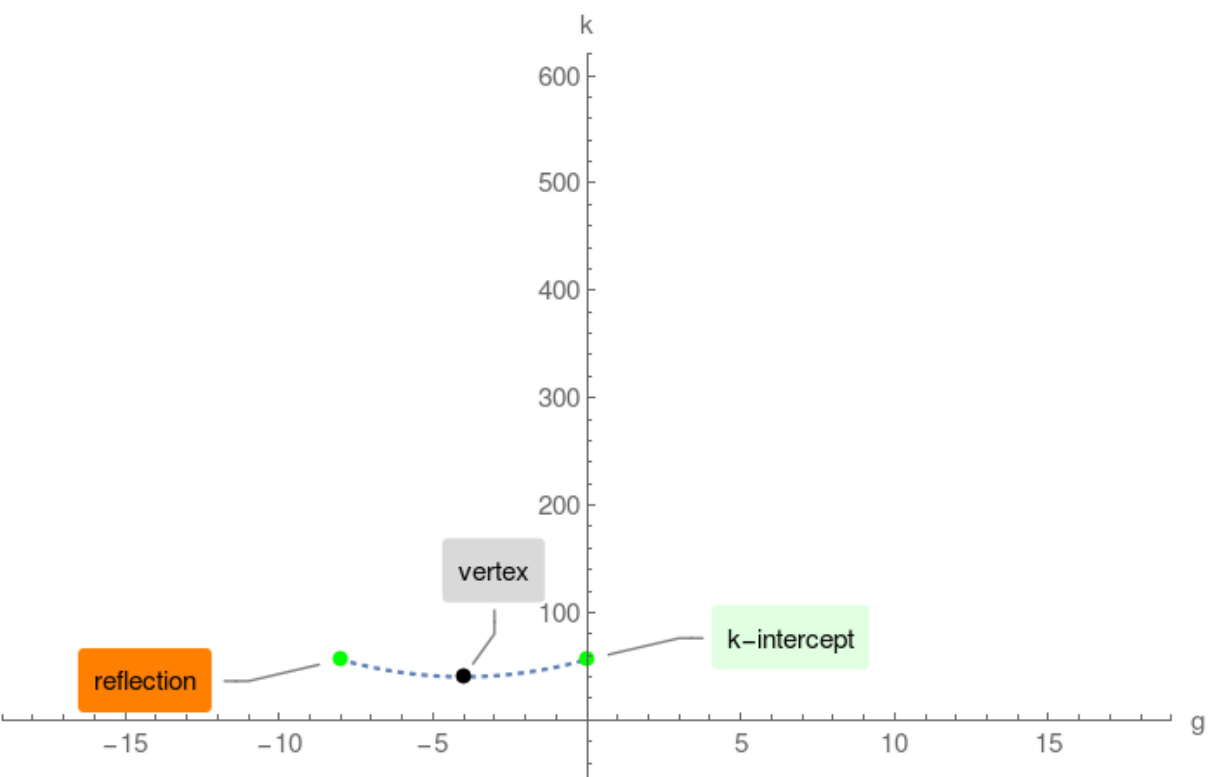Compute k-intercept and plot single point:
k-intercept = $(0, 56)$

Step 3.
Compute k-intercept reflected against vertex,
reflection = $(-8, 56)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts