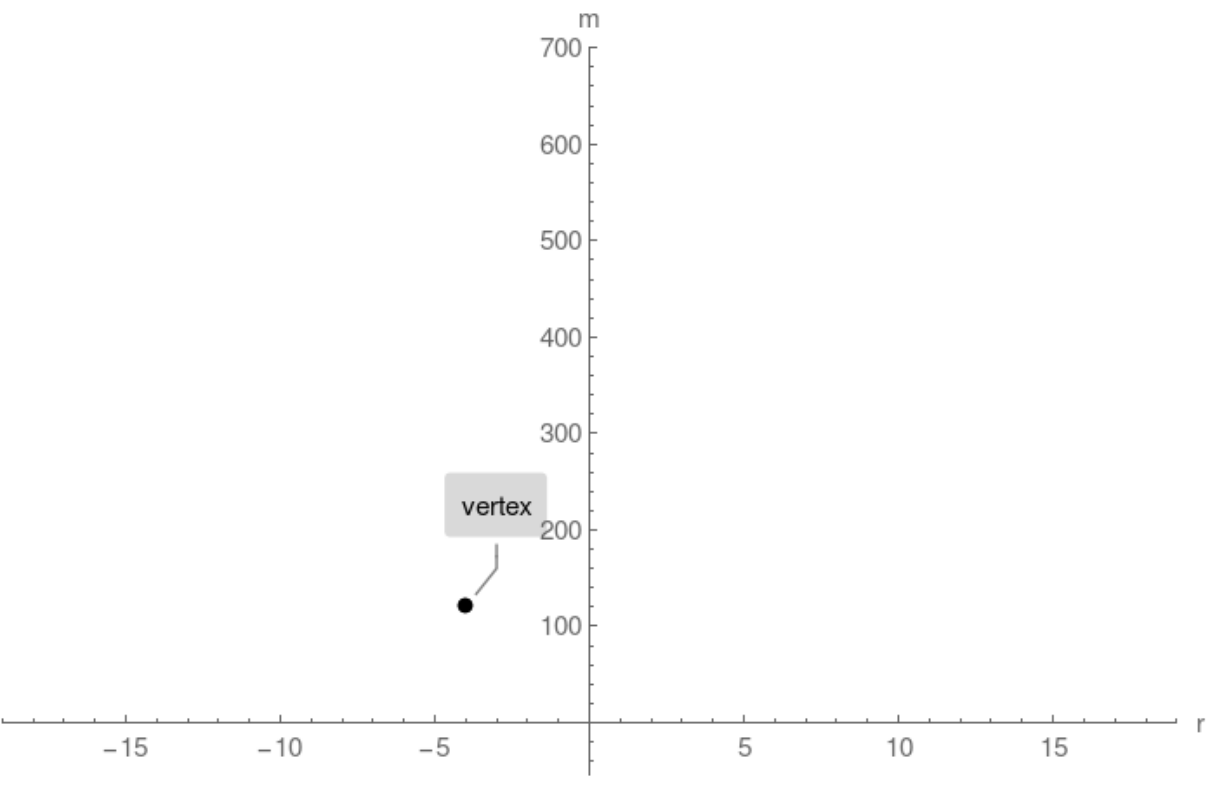
Example 2. No horizontal intercepts found

Plot $m(r) = r^2 + 8\,r + 136$

Step 1.

Compute vertex and plot single point:

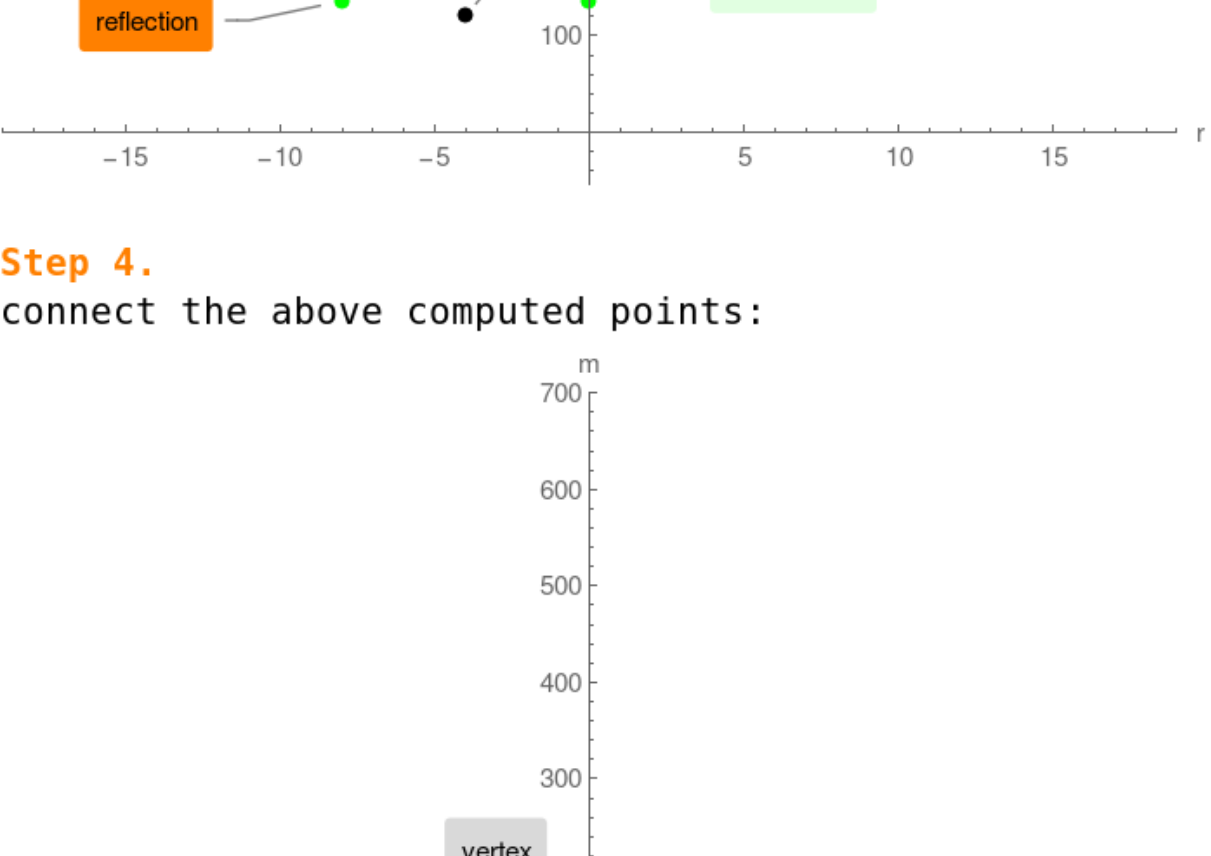
vertex$= (-4, 120)$



Step 2.

Compute m-intercept and plot single point:

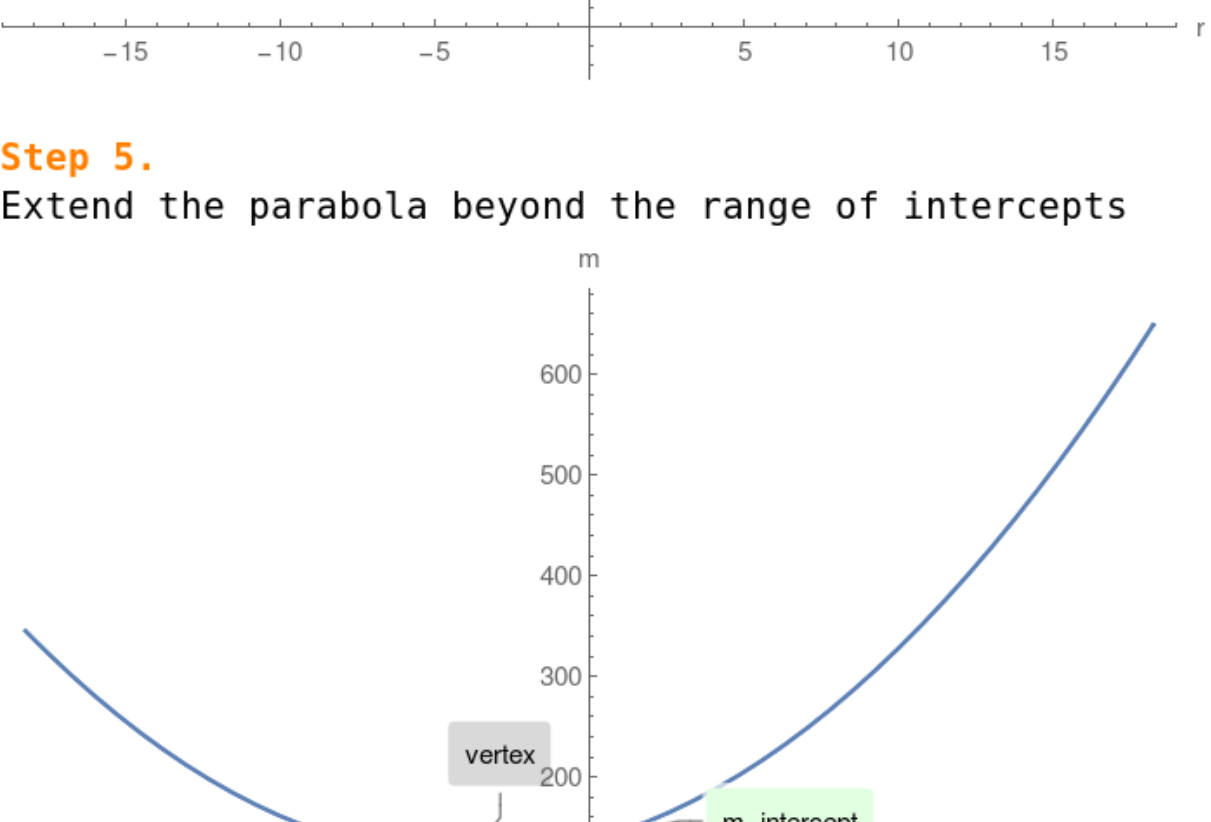
m-intercept$= (0, 136)$



Step 3.

Compute m-intercept reflected against vertex,

reflection$= (-8, 136)$



Step 4.

connect the above computed points:

Step 5.

Extend the parabola beyond the range of intercepts