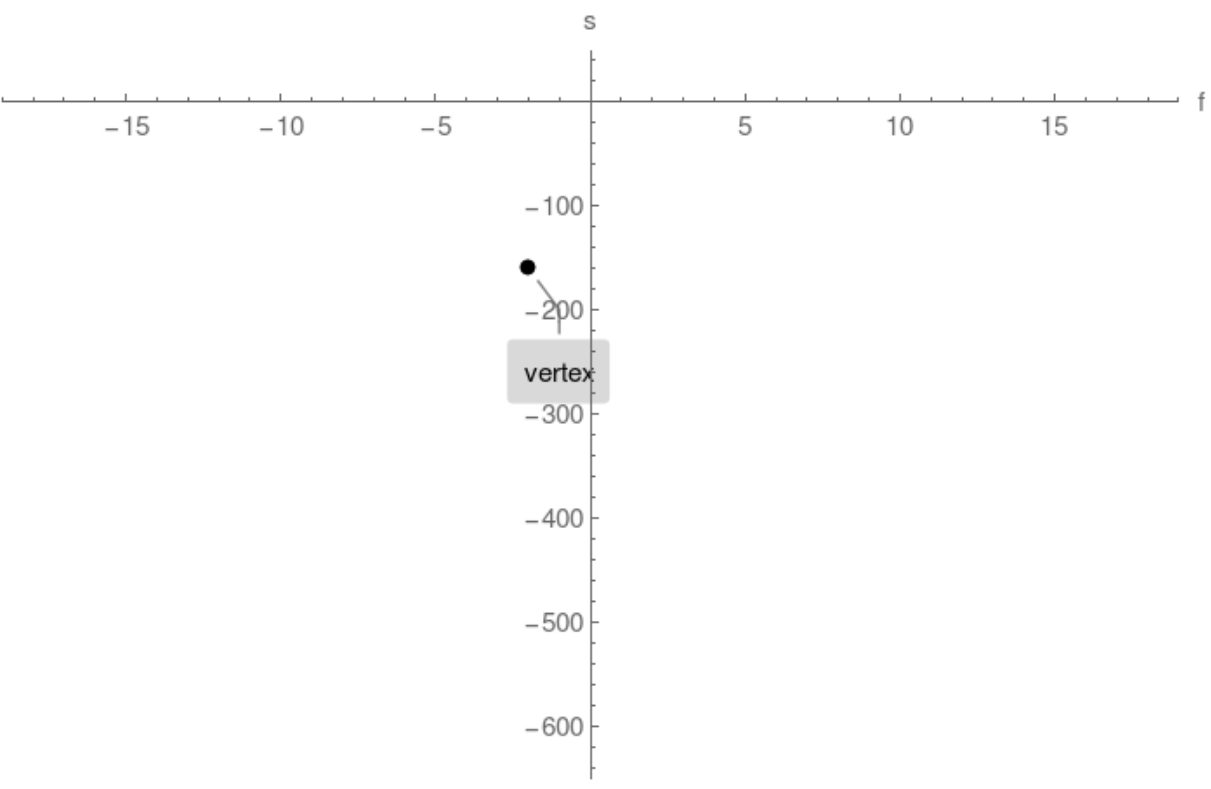
Example 2. No horizontal intercepts found

Plot $s(f) = -f^2 - 4f - 164$

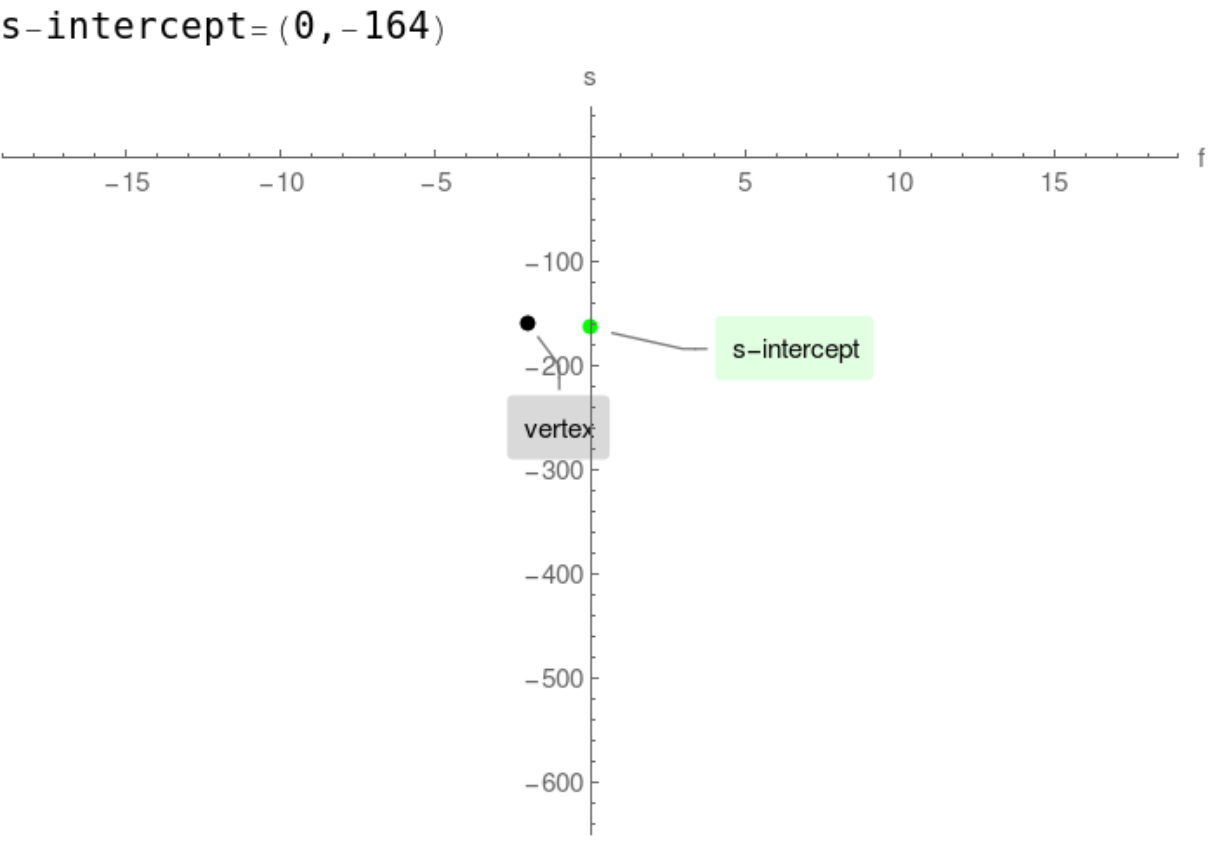
Step 1.

Compute vertex and plot single point:
vertex$= (-2, -160)$



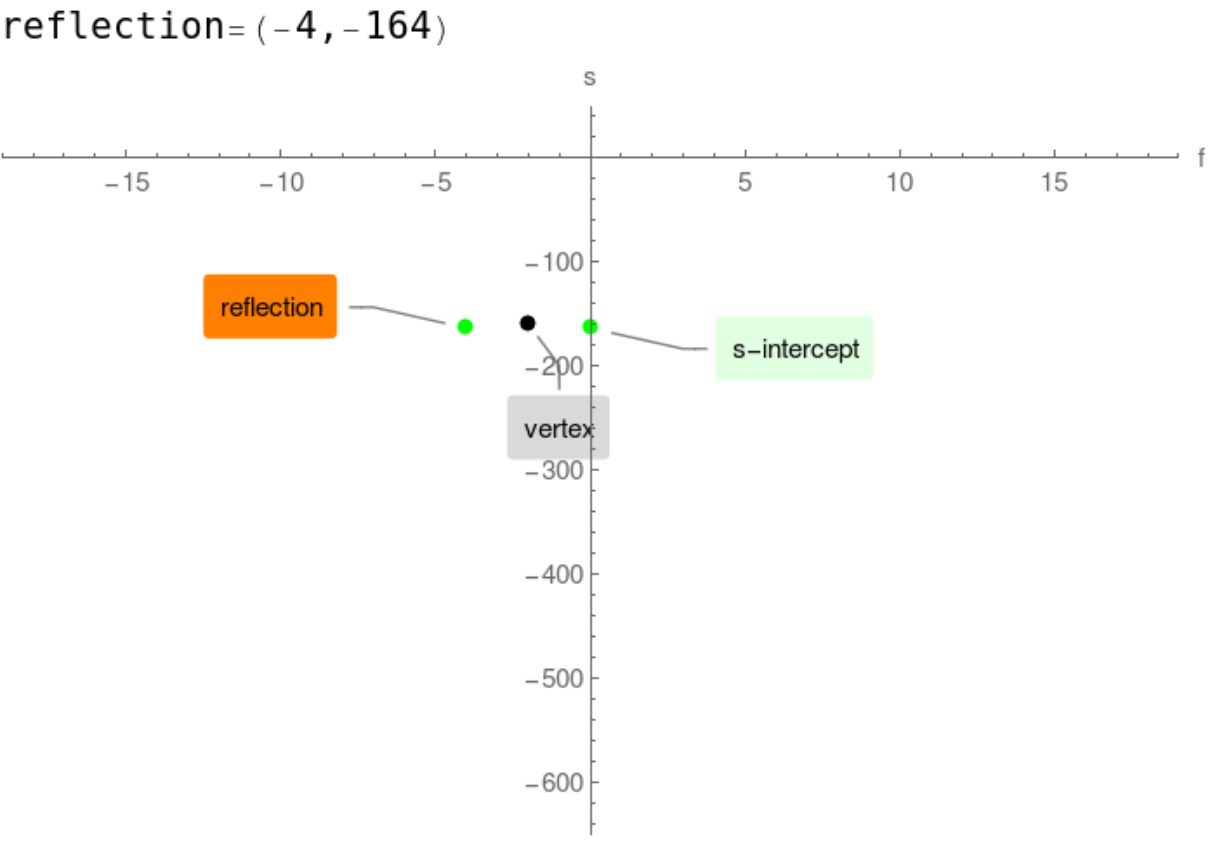
Step 2.

Compute s-intercept and plot single point:
s-intercept$= (0, -164)$



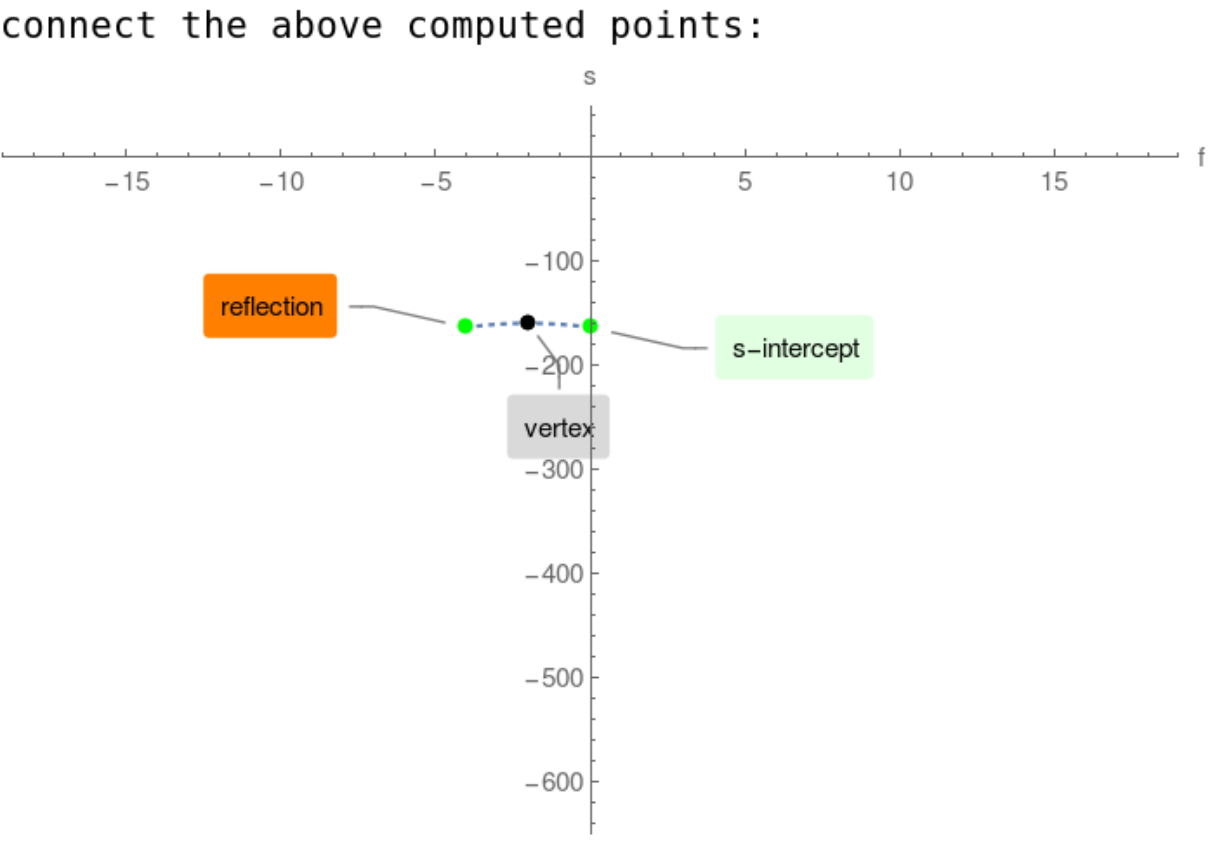
Step 3.

Compute s-intercept reflected against vertex,
reflection$= (-4, -164)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts