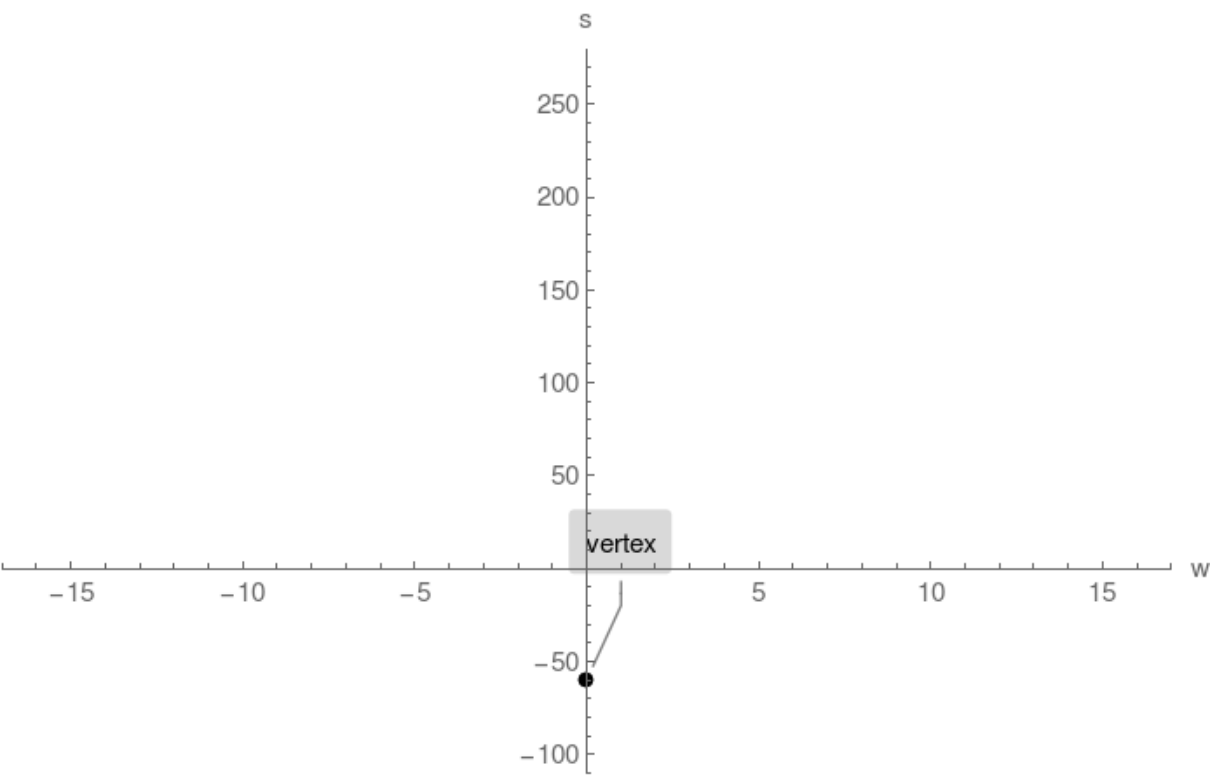
Example 1. 2 horizontal intercepts found

Plot $s(w) = w^2 - 60$

Step 1.

Compute vertex and plot single point:

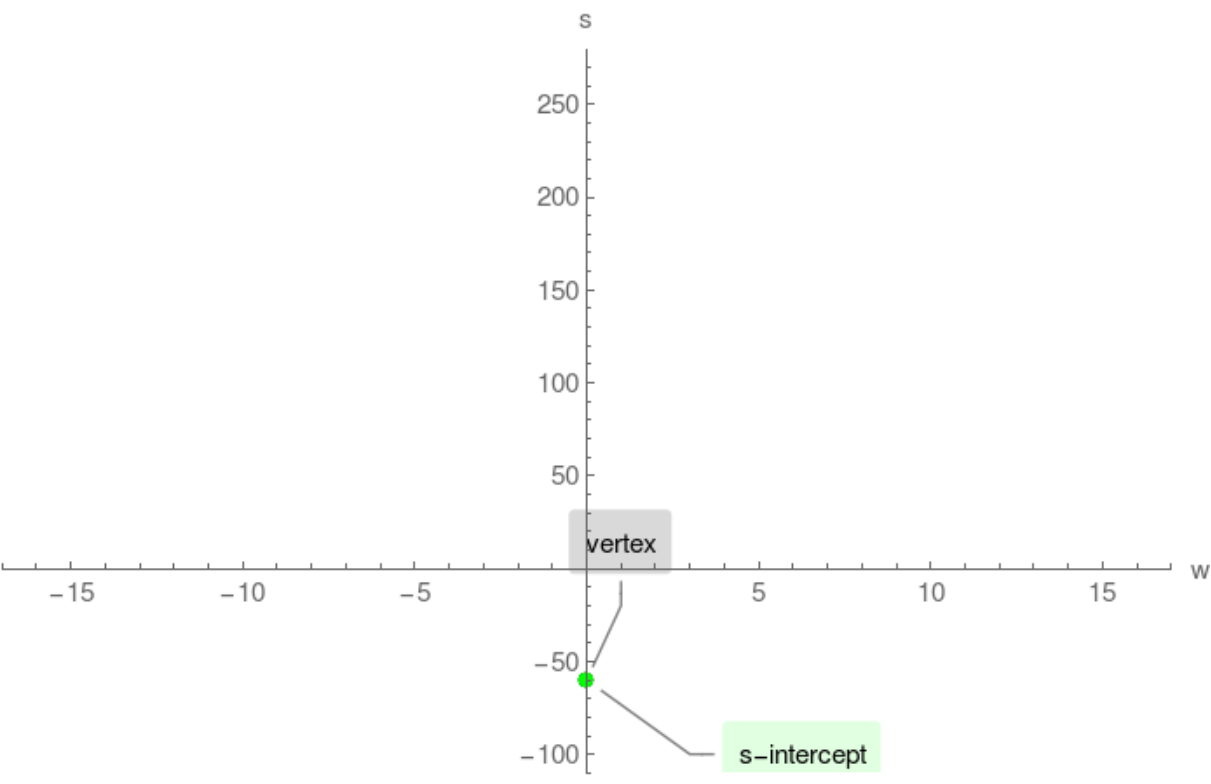
vertex $= (0, -60)$



Step 2.

Compute s-intercept and plot single point:

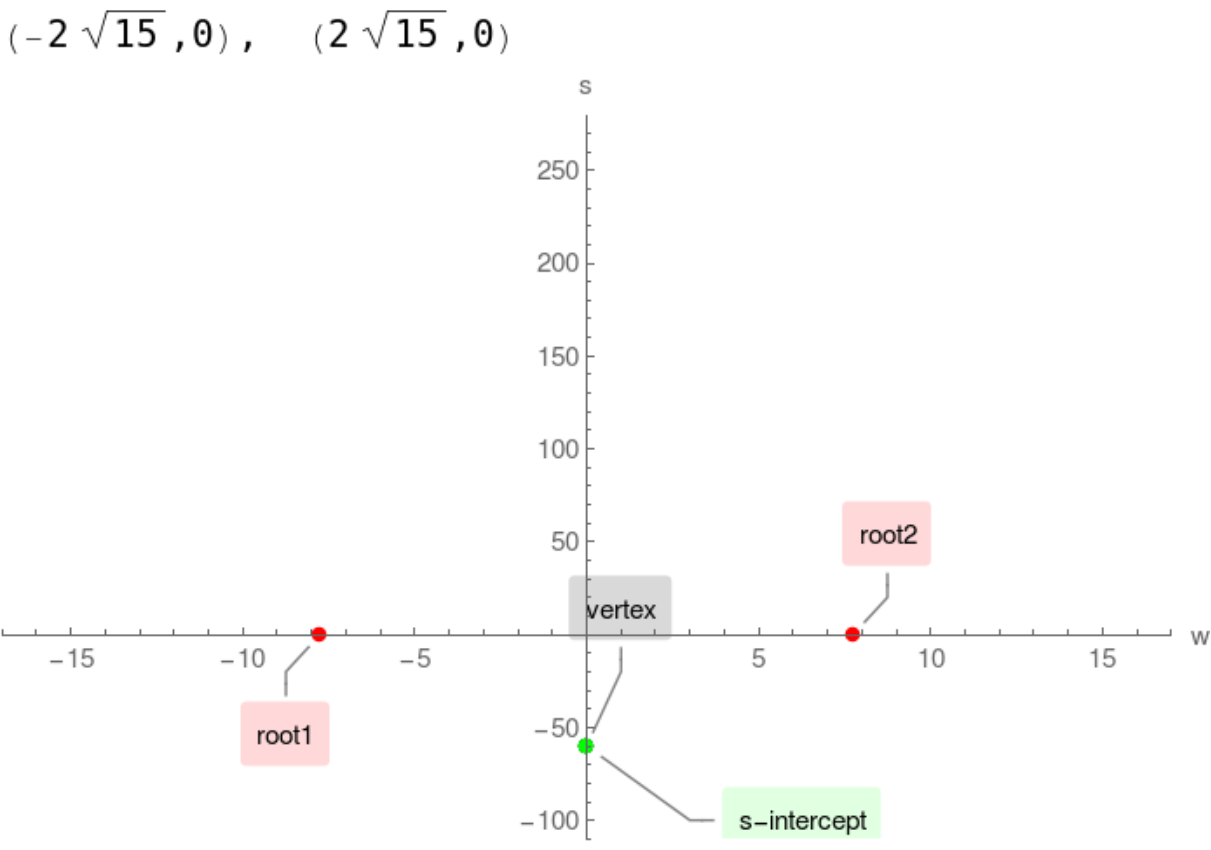
s-intercept $= (0, -60)$



Step 3.

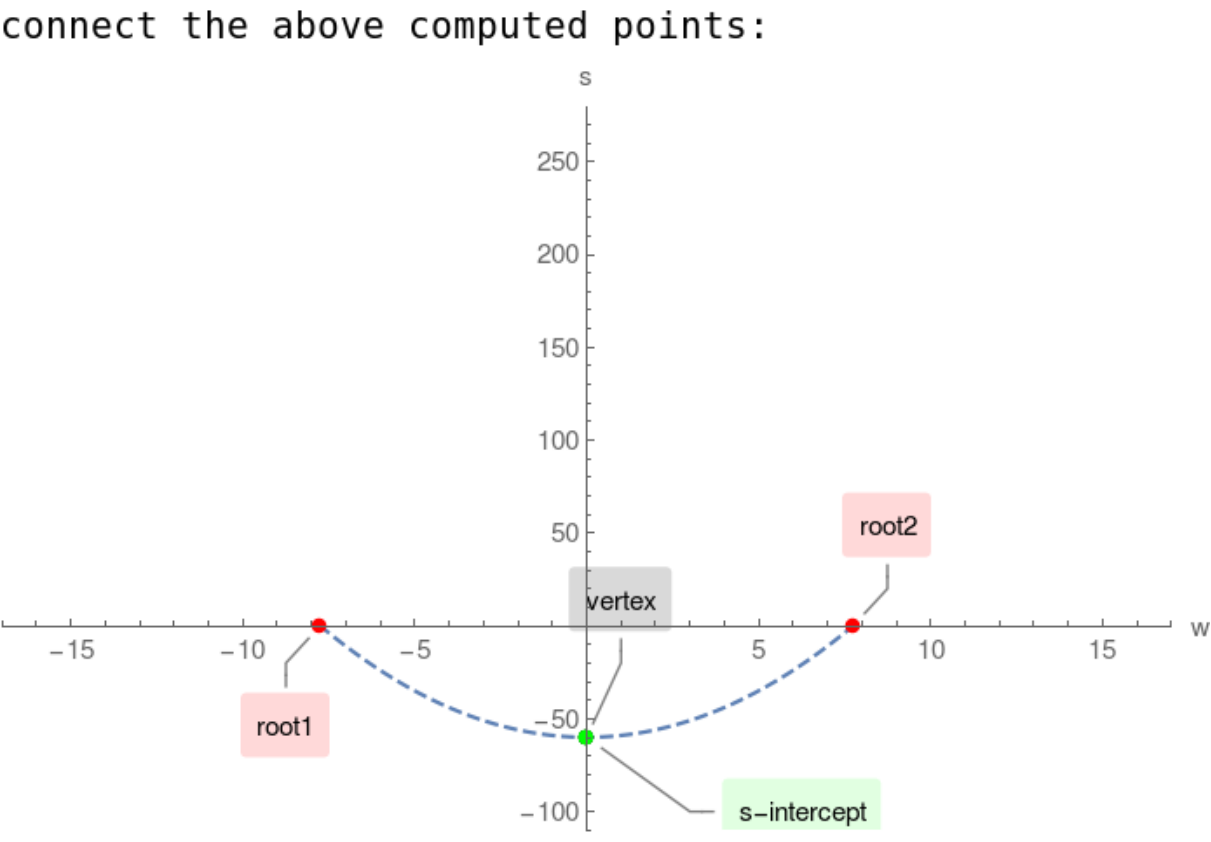
Compute w-intercepts by solving $w^2 - 60 = 0$:

$(-2\sqrt{15}, 0)$, $(2\sqrt{15}, 0)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts