

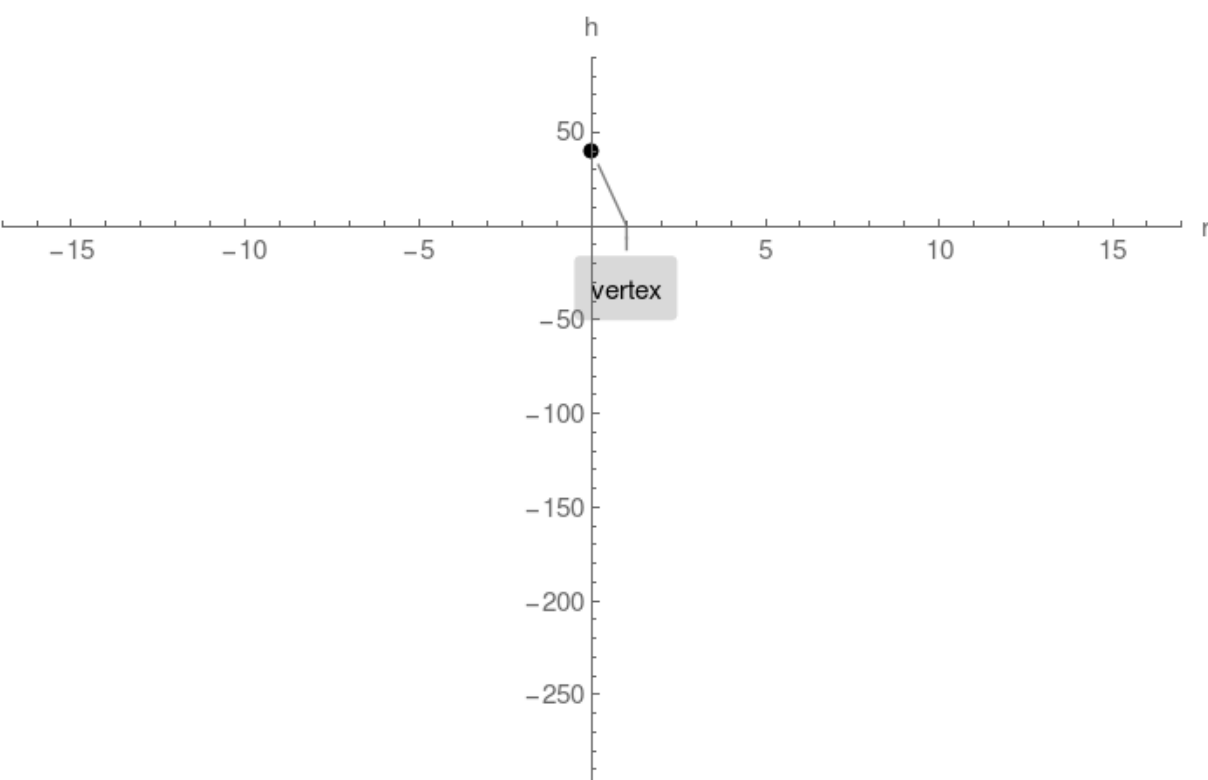
Example 1. 2 horizontal intercepts found

Plot $h(r) = 40 - r^2$

Step 1.

Compute vertex and plot single point:

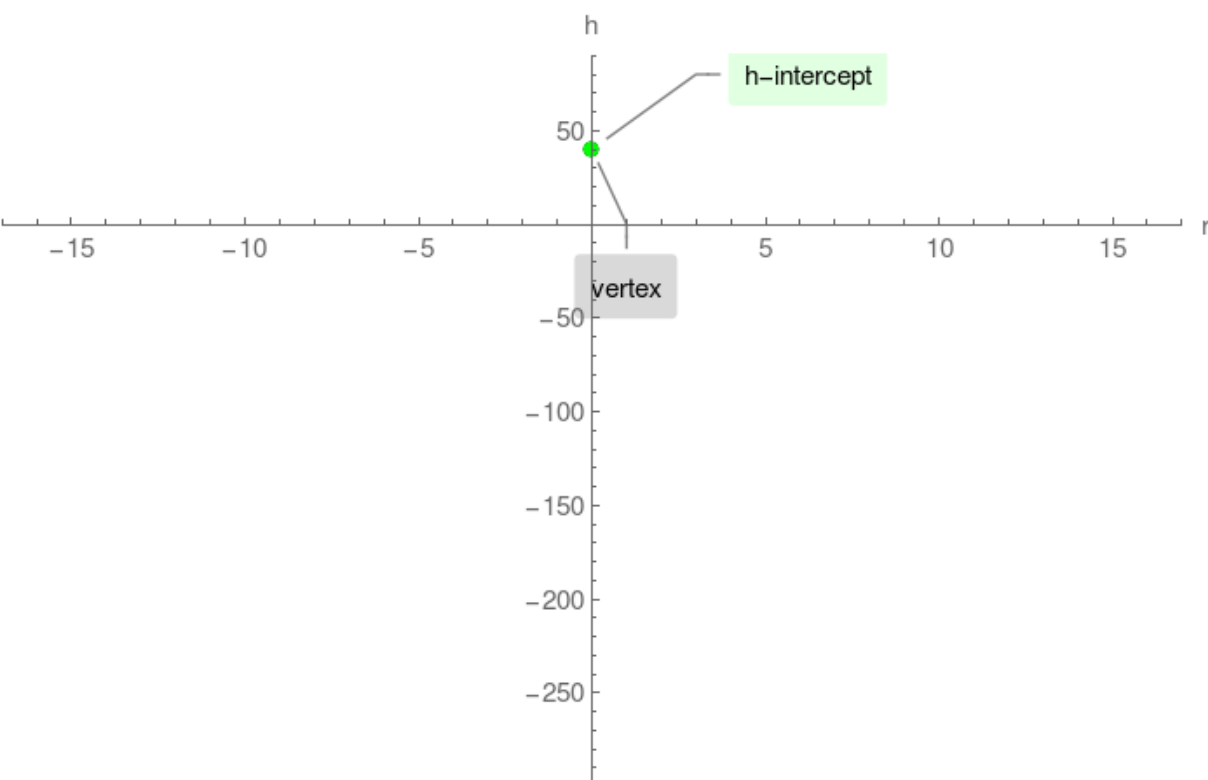
vertex = $(0, 40)$



Step 2.

Compute h-intercept and plot single point:

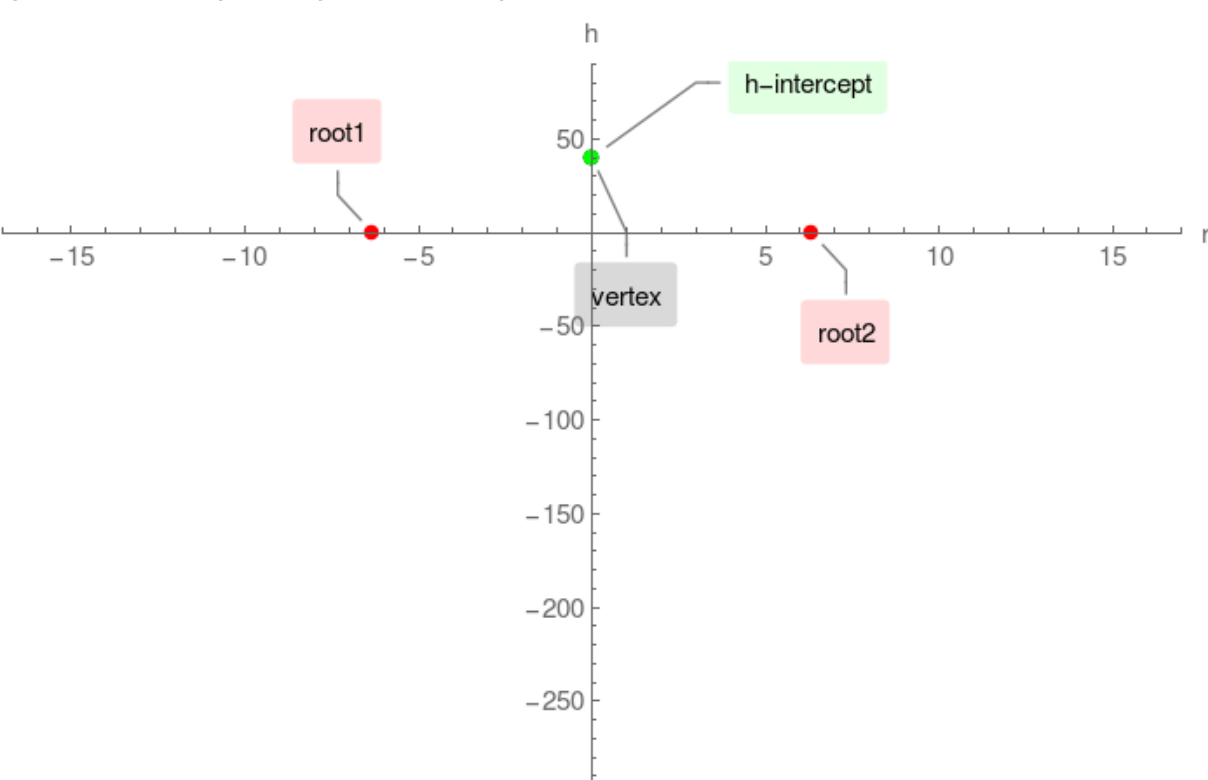
h-intercept = $(0, 40)$



Step 3.

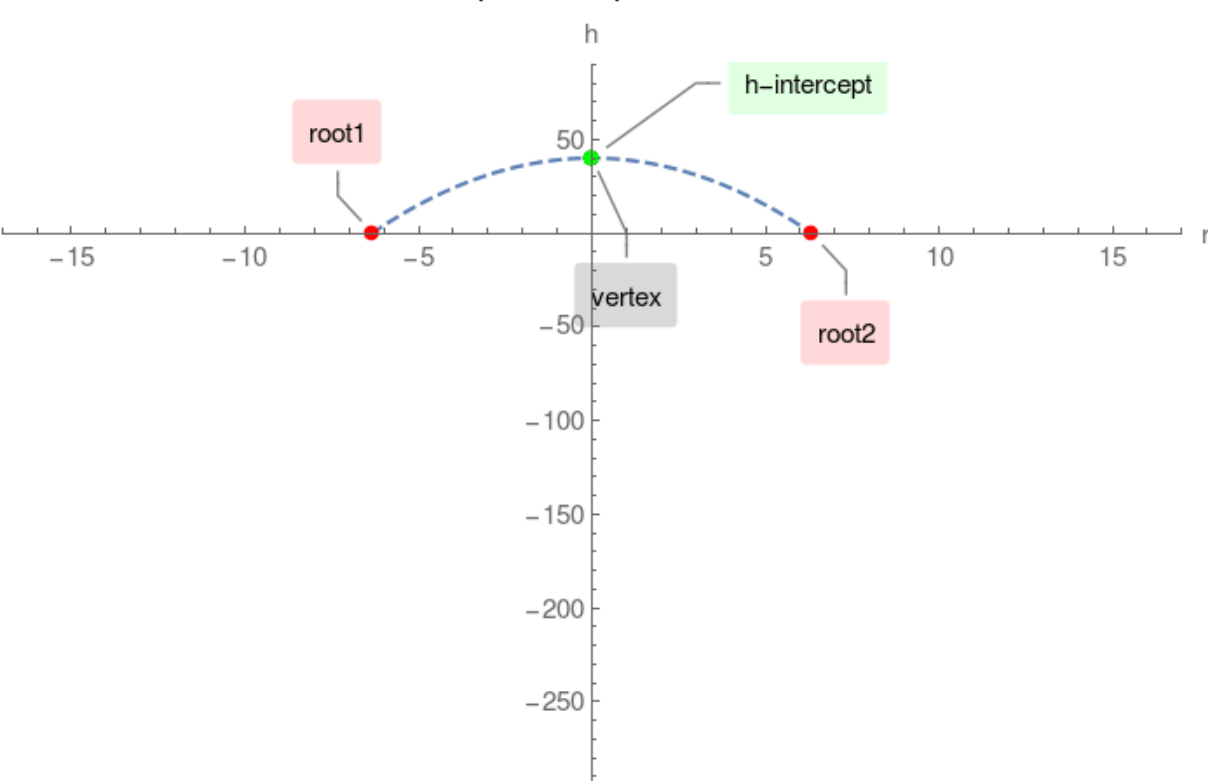
Compute r-intercepts by solving $40 - r^2 = 0$:

$(-2\sqrt{10}, 0)$, $(2\sqrt{10}, 0)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

