

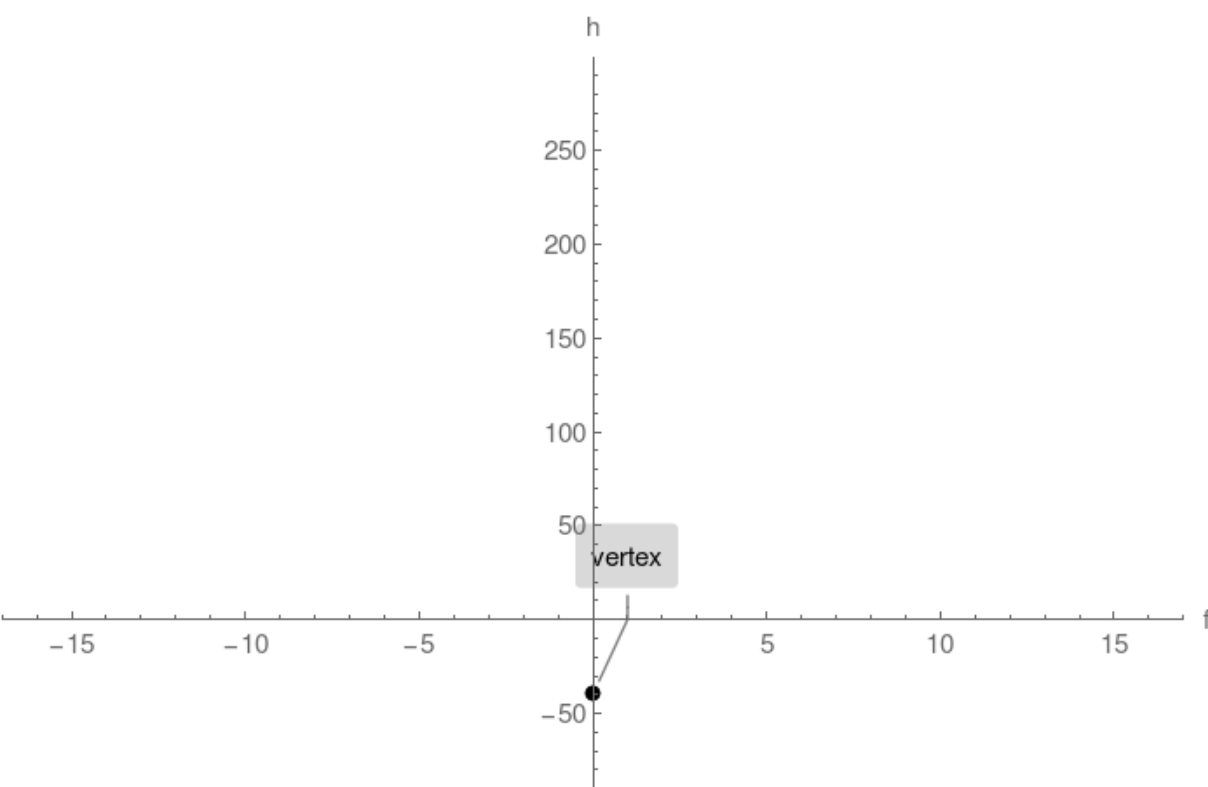
## Example 1. 2 horizontal intercepts found

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

### Step 1.

Compute vertex and plot single point:

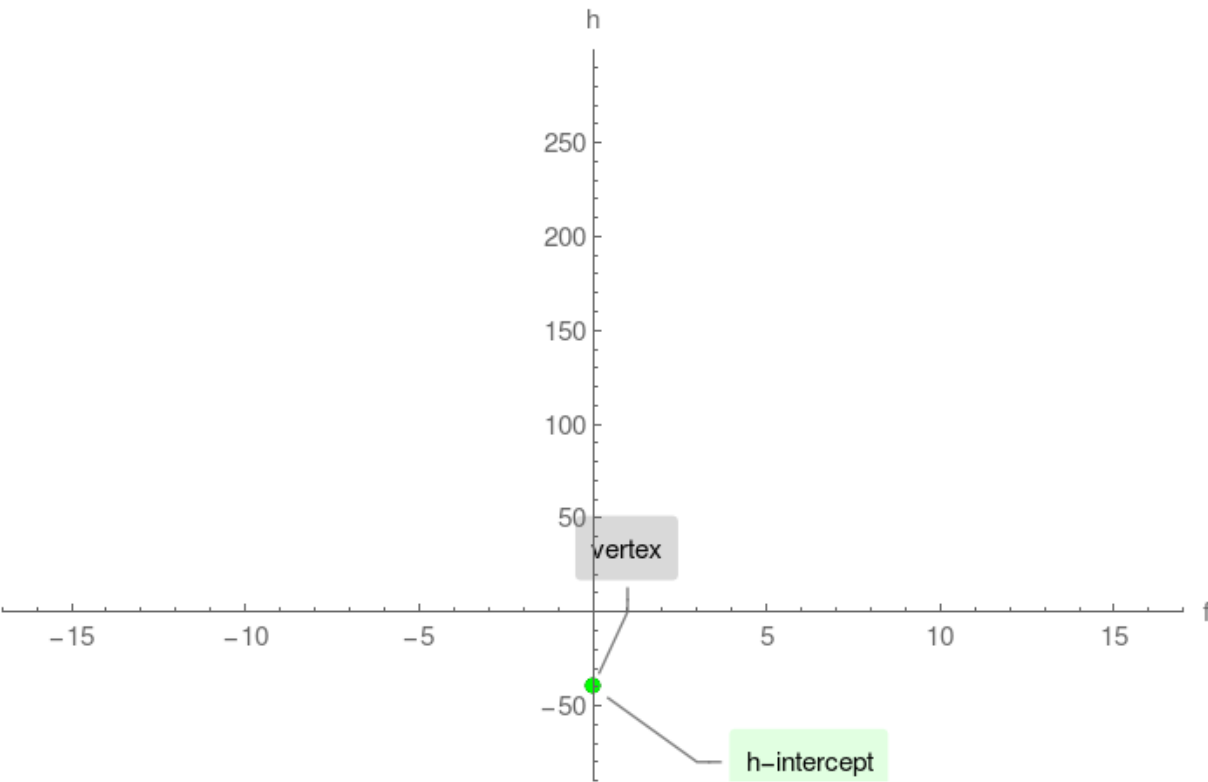
vertex =  $(0, -40)$



### Step 2.

Compute h-intercept and plot single point:

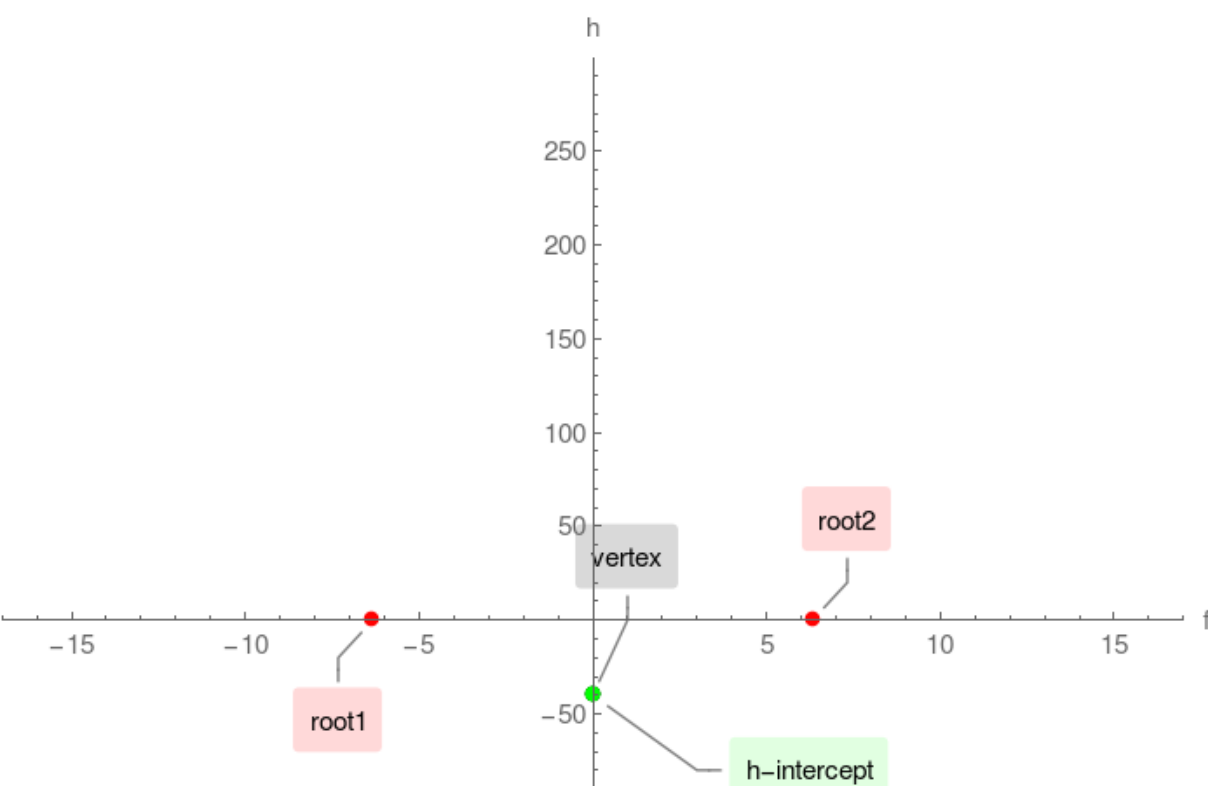
h-intercept =  $(0, -40)$



### Step 3.

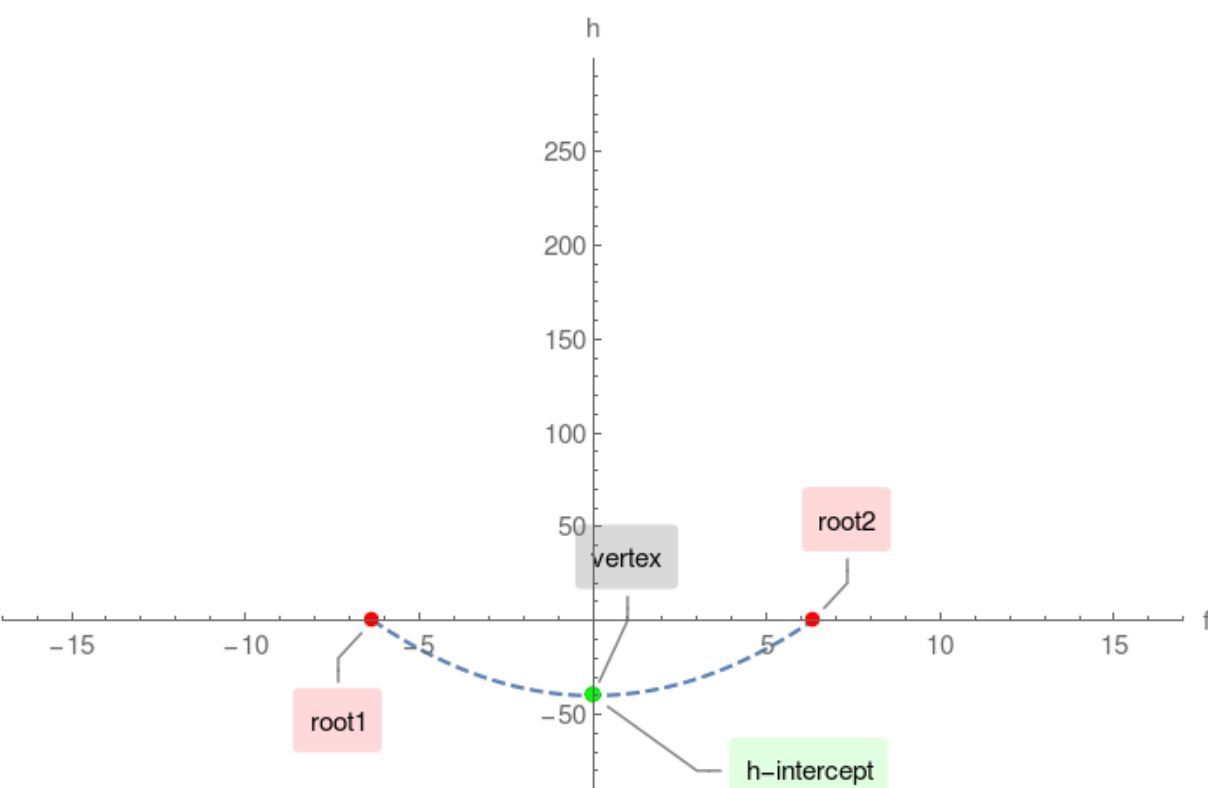
Compute f-intercepts by solving  $f^2 - 40 = 0$ :

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



### Step 4.

connect the above computed points:



### Step 5.

Extend the parabola beyond the range of intercepts

