

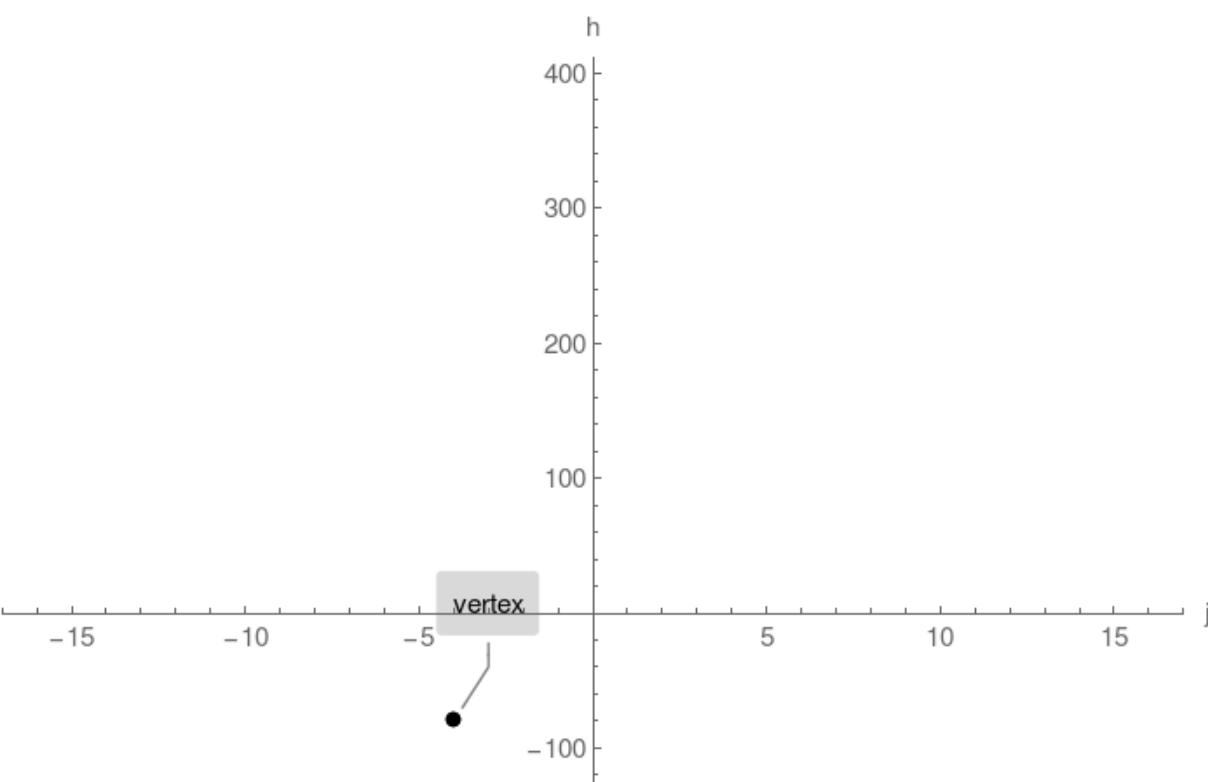
## Example 1. 2 horizontal intercepts found

Plot  $h(j) = j^2 + 8j - 64$

### Step 1.

Compute vertex and plot single point:

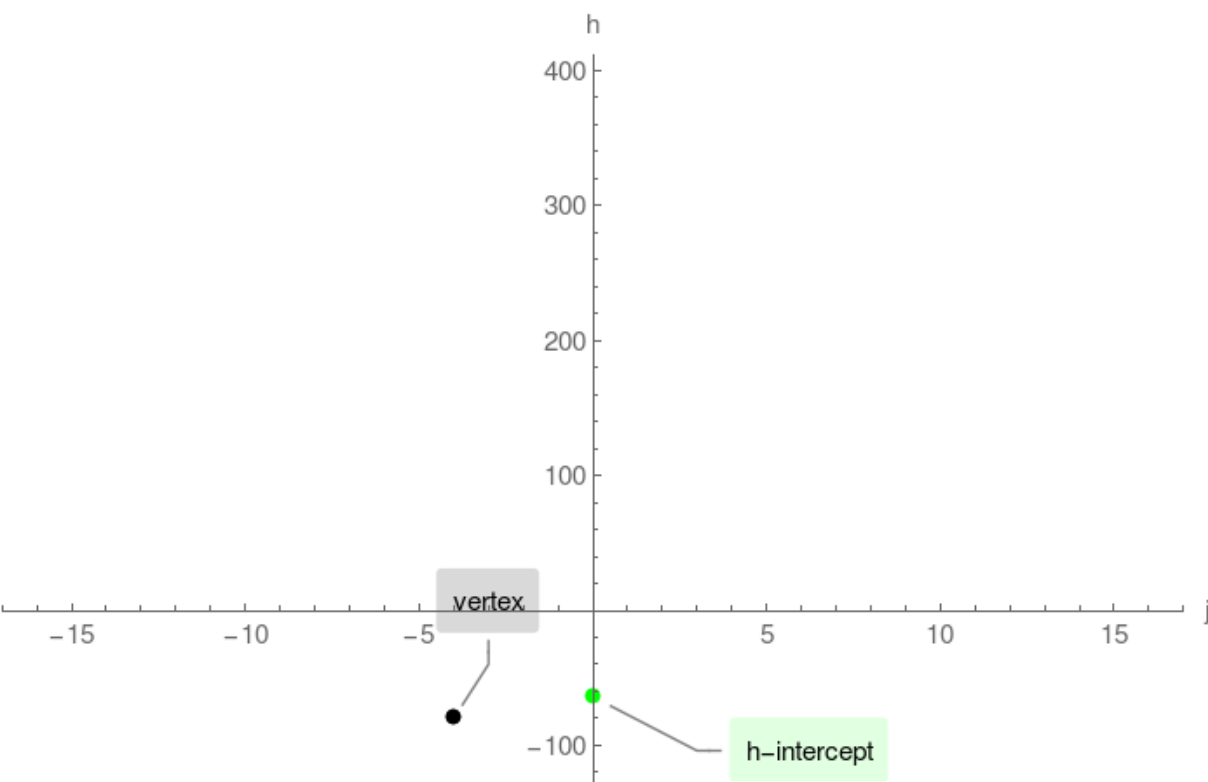
vertex =  $(-4, -80)$



### Step 2.

Compute h-intercept and plot single point:

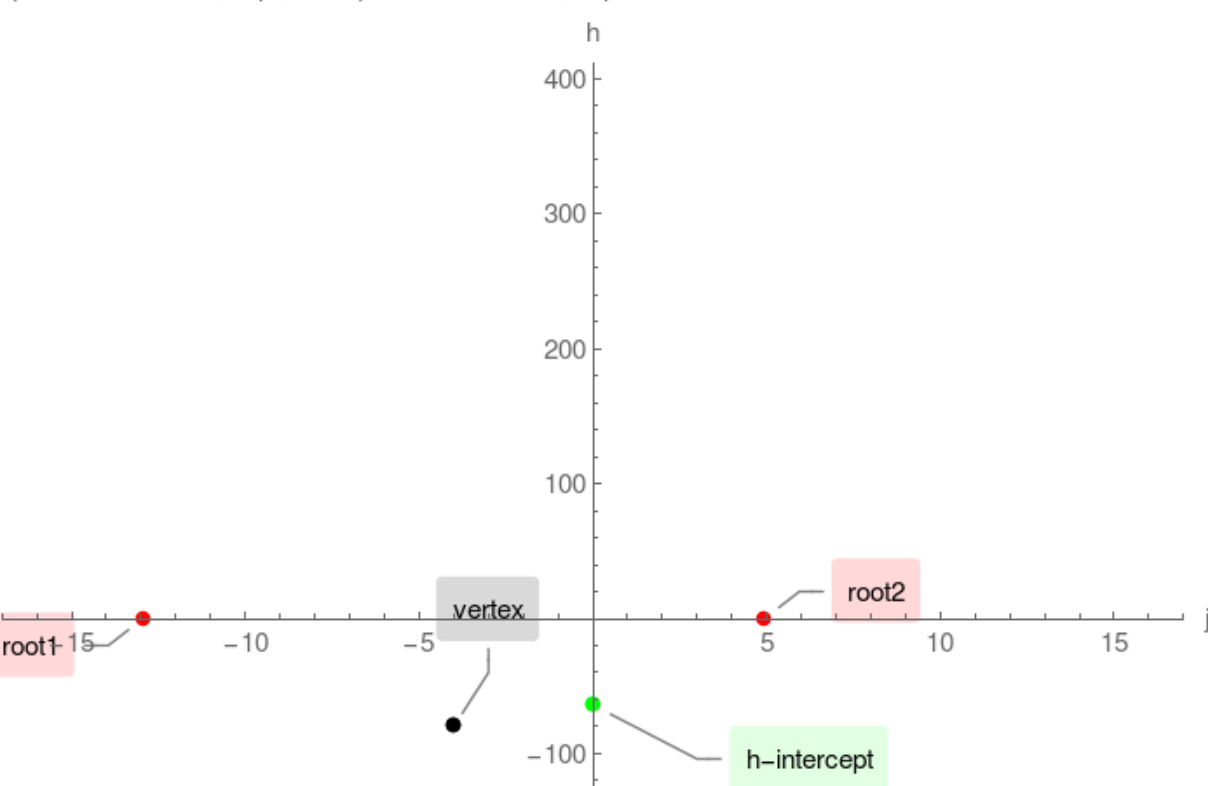
h-intercept =  $(0, -64)$



### Step 3.

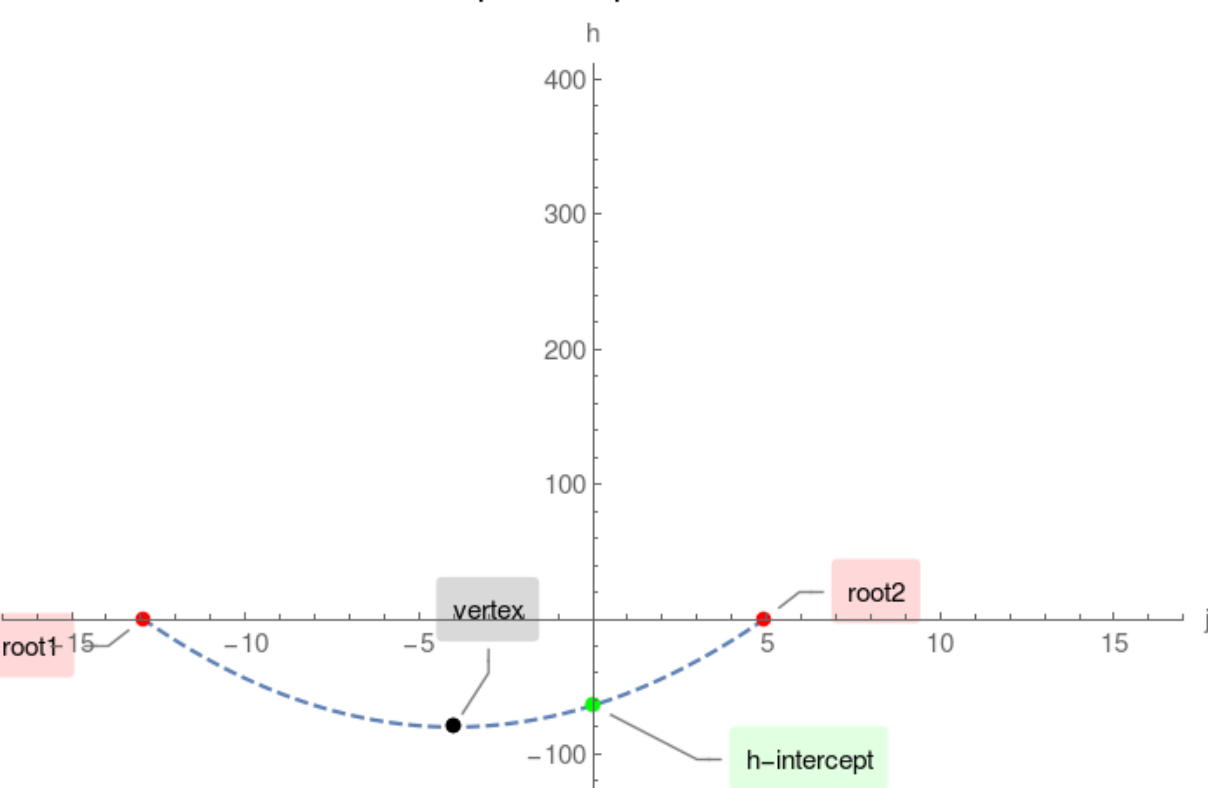
Compute j-intercepts by solving  $j^2 + 8j - 64 = 0$ :

$(-4 - 4\sqrt{5}, 0)$ ,  $(-4 + 4\sqrt{5}, 0)$



### Step 4.

connect the above computed points:



### Step 5.

Extend the parabola beyond the range of intercepts

