

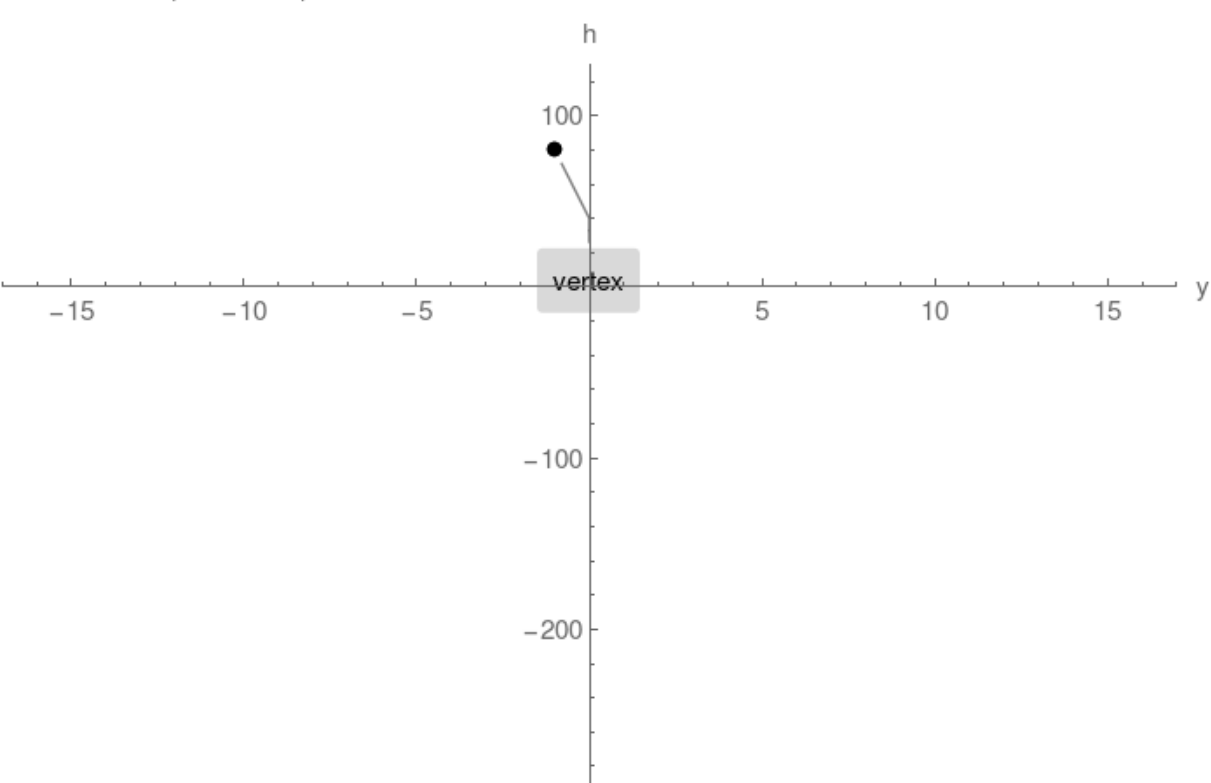
## Example 1. 2 horizontal intercepts found

Plot  $h(y) = -y^2 - 2y + 79$

### Step 1.

Compute vertex and plot single point:

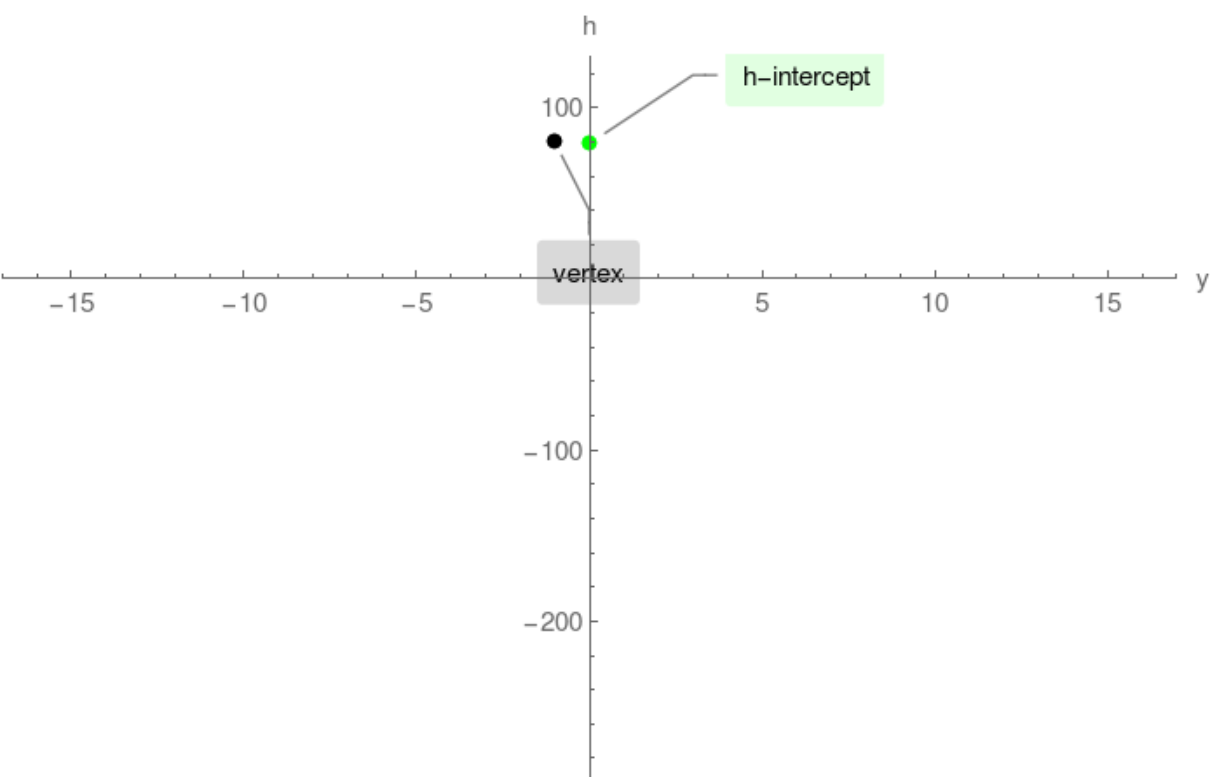
vertex =  $(-1, 80)$



### Step 2.

Compute h-intercept and plot single point:

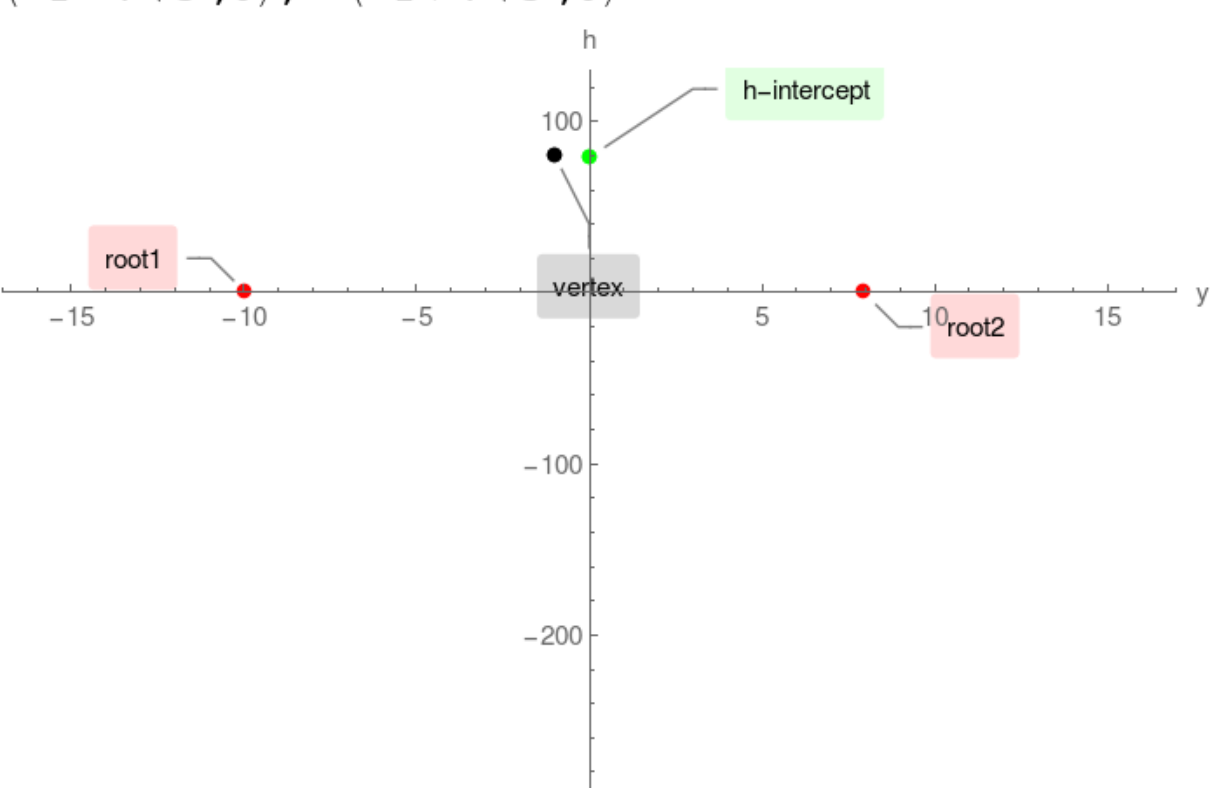
h-intercept =  $(0, 79)$



### Step 3.

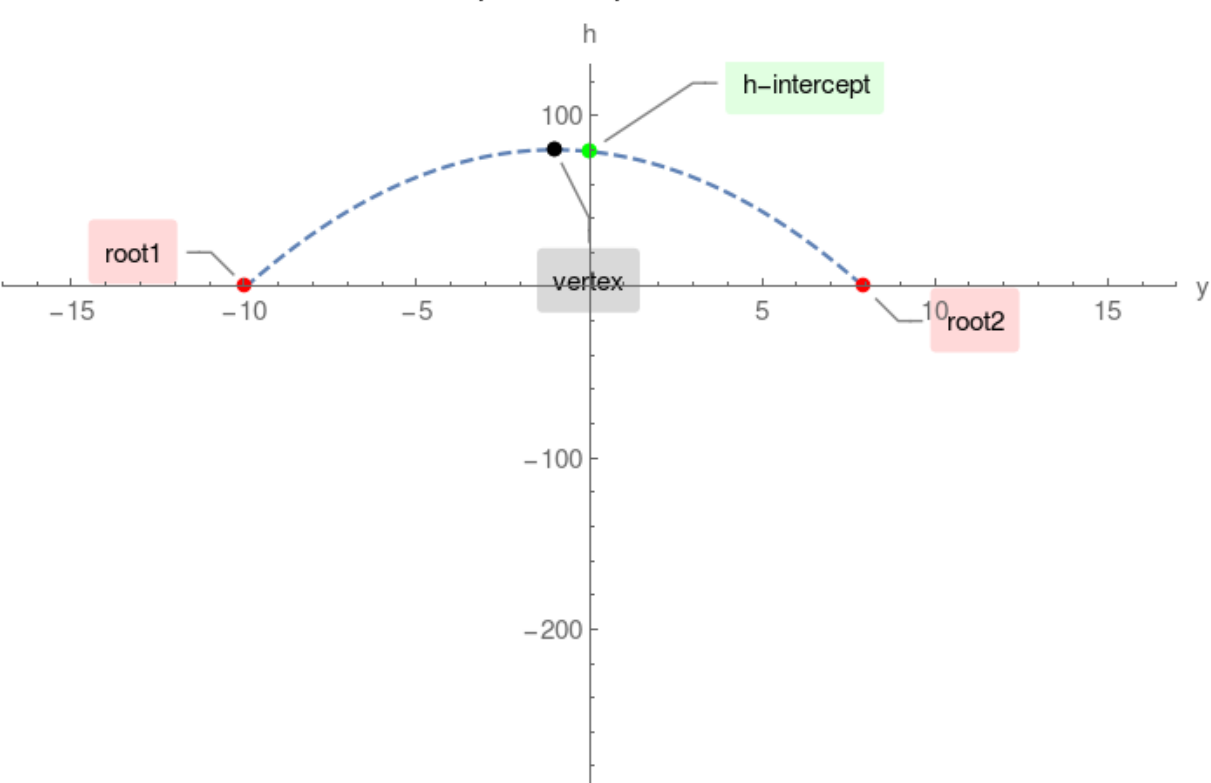
Compute y-intercepts by solving  $-y^2 - 2y + 79 = 0$ :

$(-1 - 4\sqrt{5}, 0)$ ,  $(-1 + 4\sqrt{5}, 0)$



### Step 4.

connect the above computed points:



### Step 5.

Extend the parabola beyond the range of intercepts

