

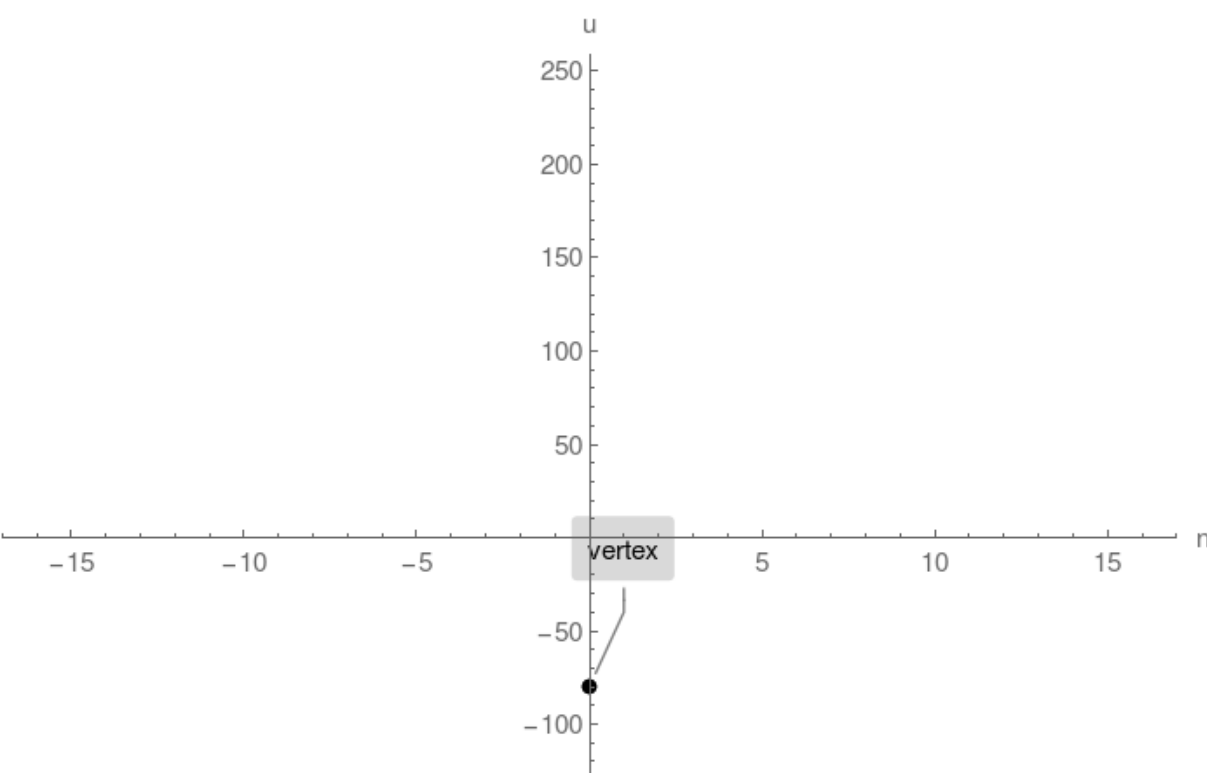
## Example 1. 2 horizontal intercepts found

Plot  $u(n) = n^2 - 80$

### Step 1.

Compute vertex and plot single point:

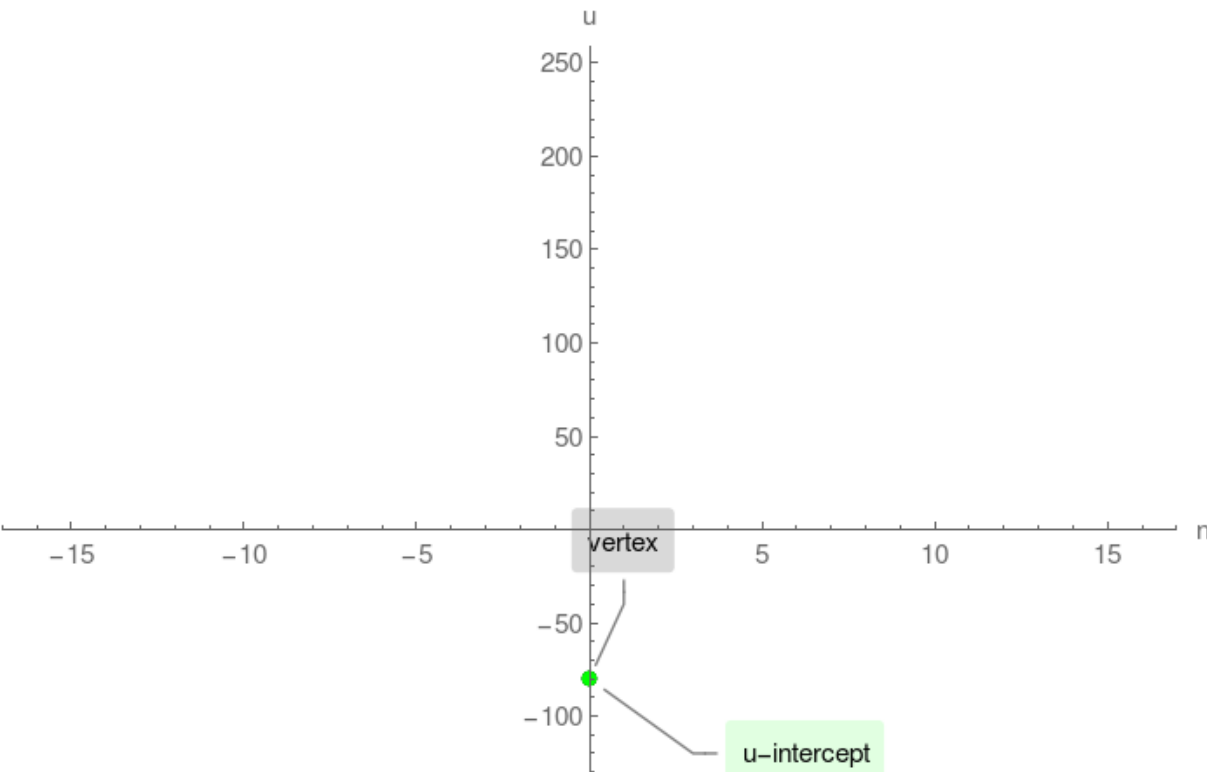
vertex =  $(0, -80)$



### Step 2.

Compute u-intercept and plot single point:

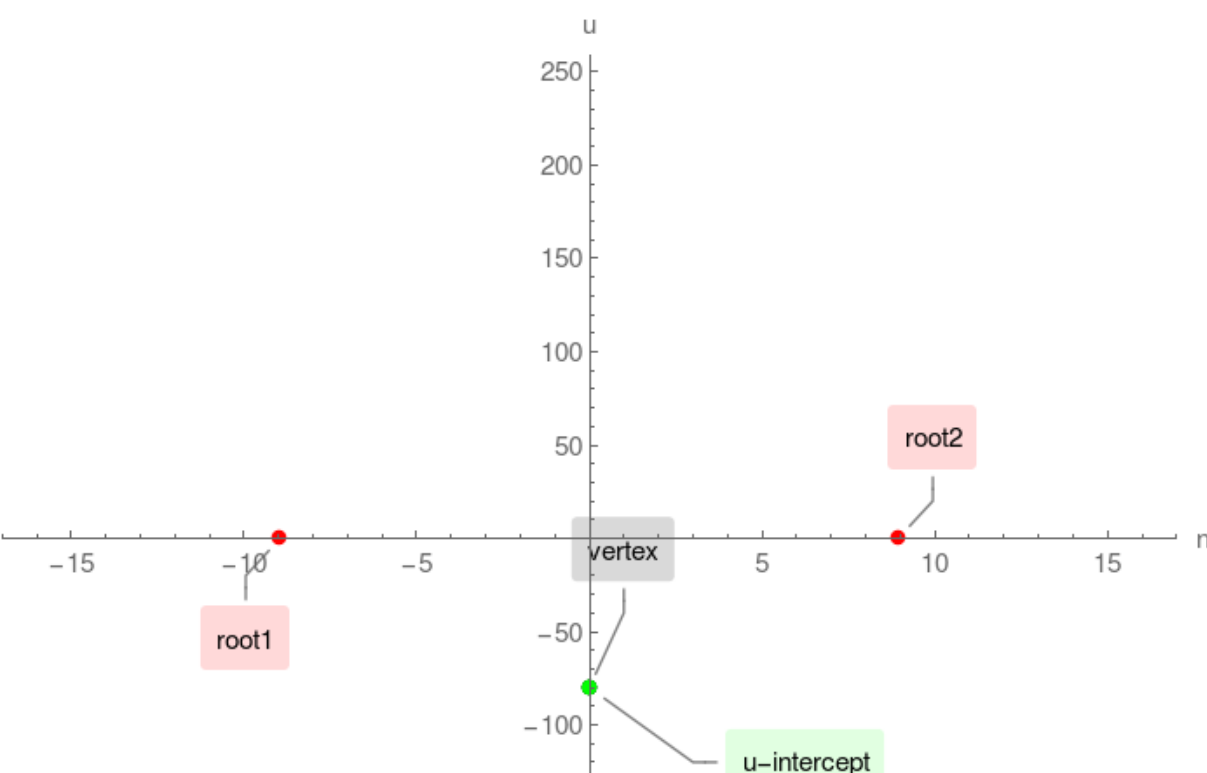
u-intercept =  $(0, -80)$



### Step 3.

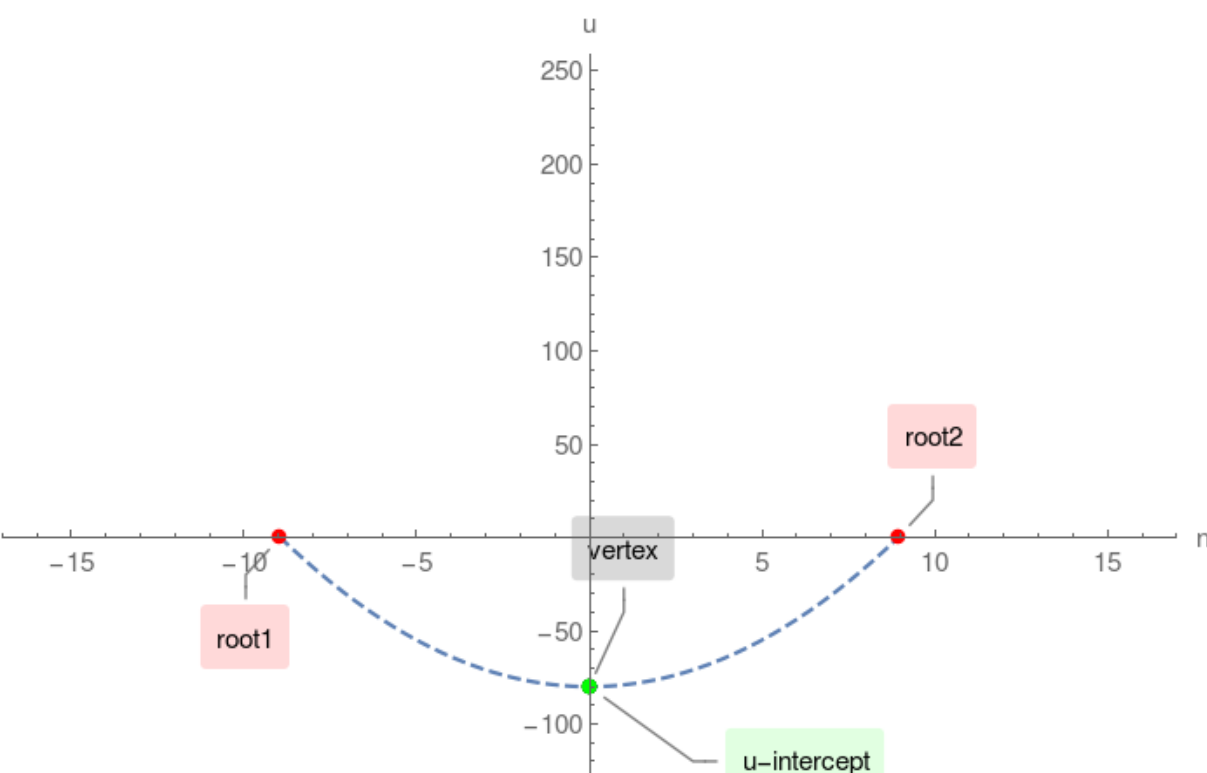
Compute n-intercepts by solving  $n^2 - 80 = 0$ :

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



### Step 4.

connect the above computed points:



### Step 5.

Extend the parabola beyond the range of intercepts

