

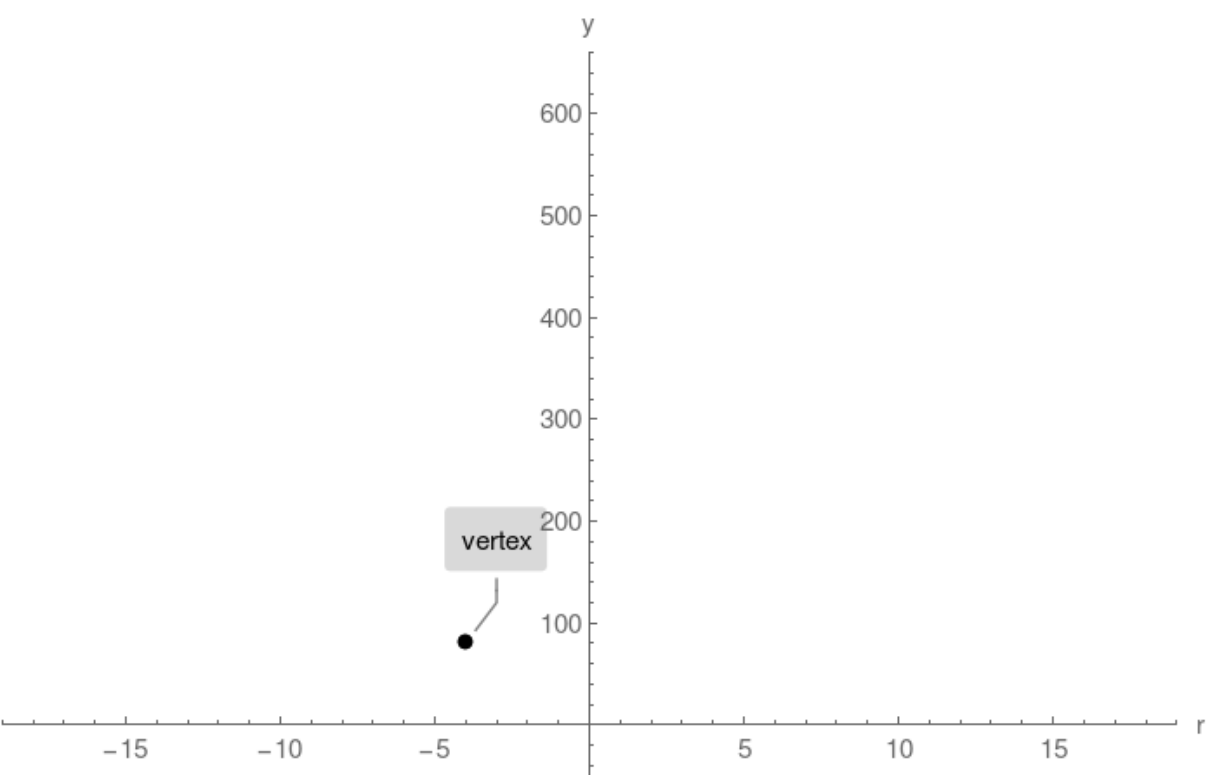
## Example 2. No horizontal intercepts found

Plot  $y(r) = r^2 + 8r + 96$

### Step 1.

Compute vertex and plot single point:

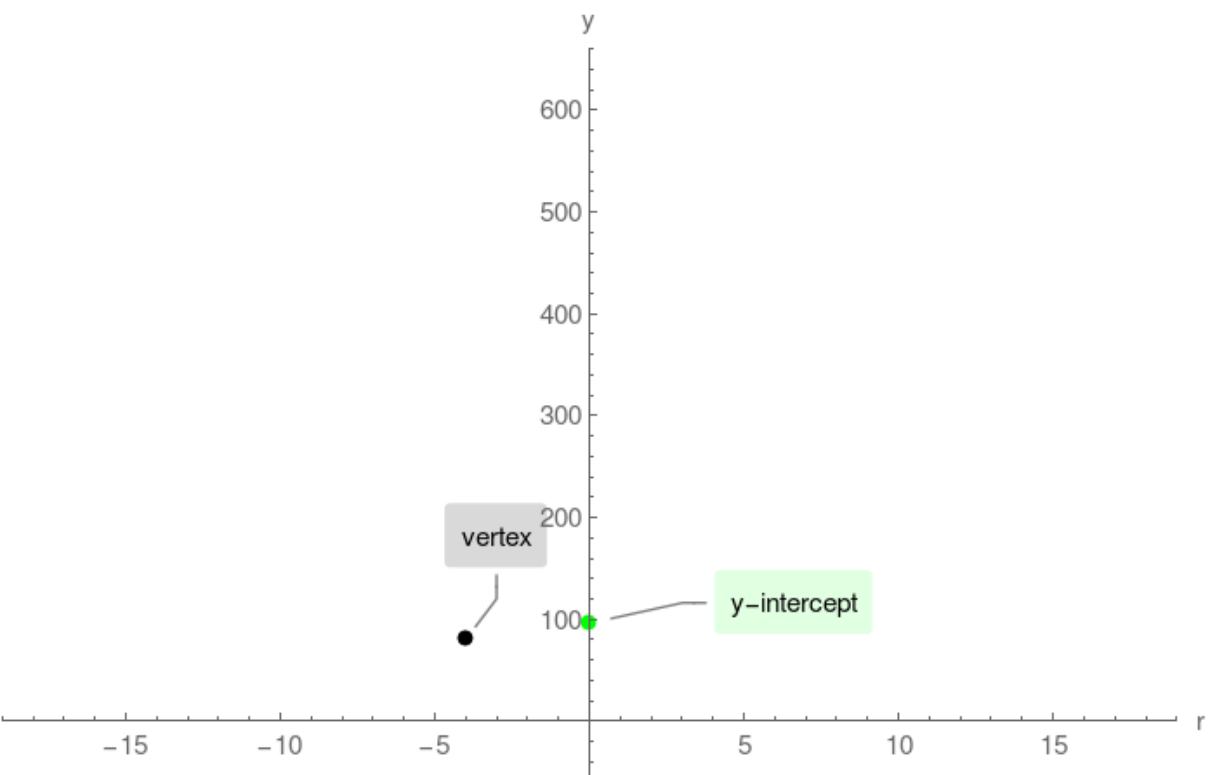
vertex =  $(-4, 80)$



### Step 2.

Compute y-intercept and plot single point:

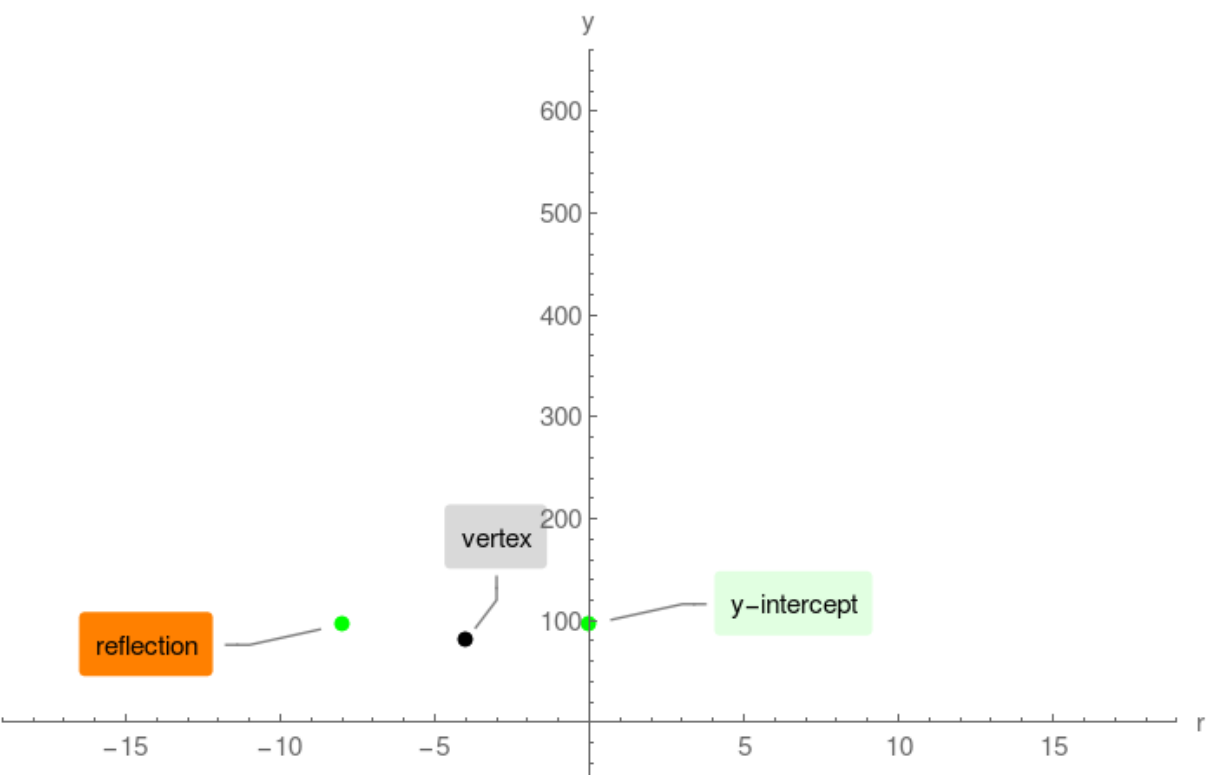
y-intercept =  $(0, 96)$



### Step 3.

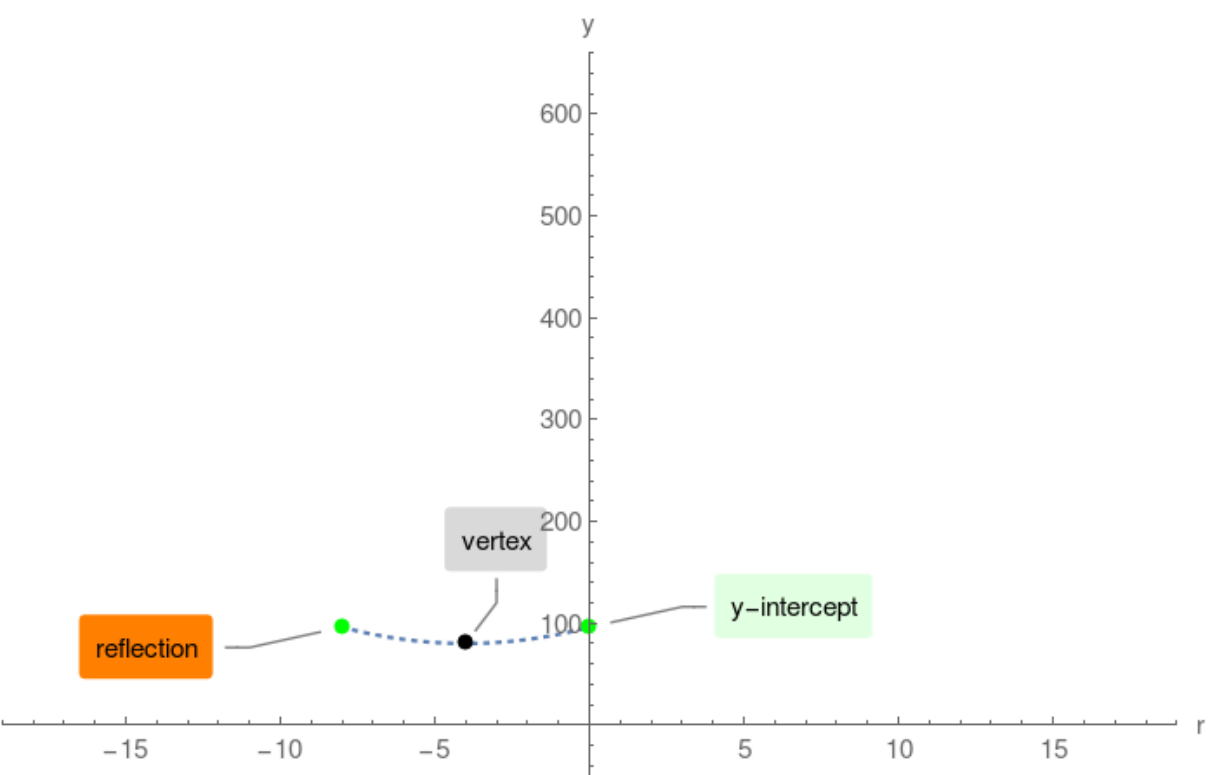
Compute y-intercept reflected against vertex,

reflection =  $(-8, 96)$



### Step 4.

connect the above computed points:



### Step 5.

Extend the parabola beyond the range of intercepts

