

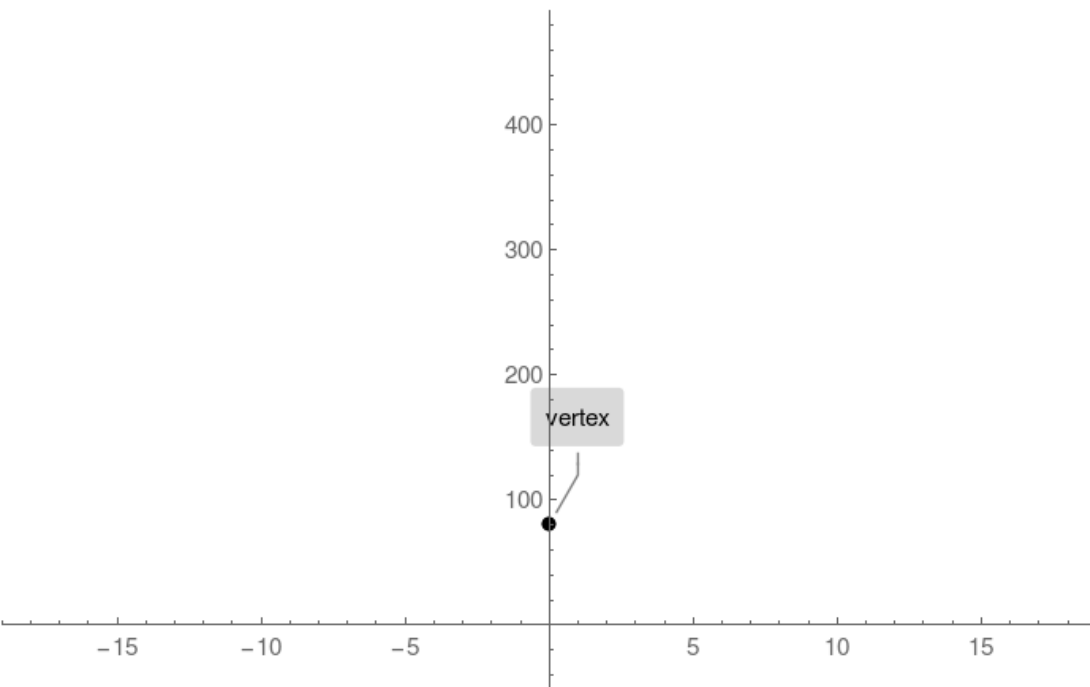
### Example 3. Vertex equal to vertical intercept

Plot  $y(d) = d^2 + 80$

#### Step 1.

Compute vertex and plot single point:

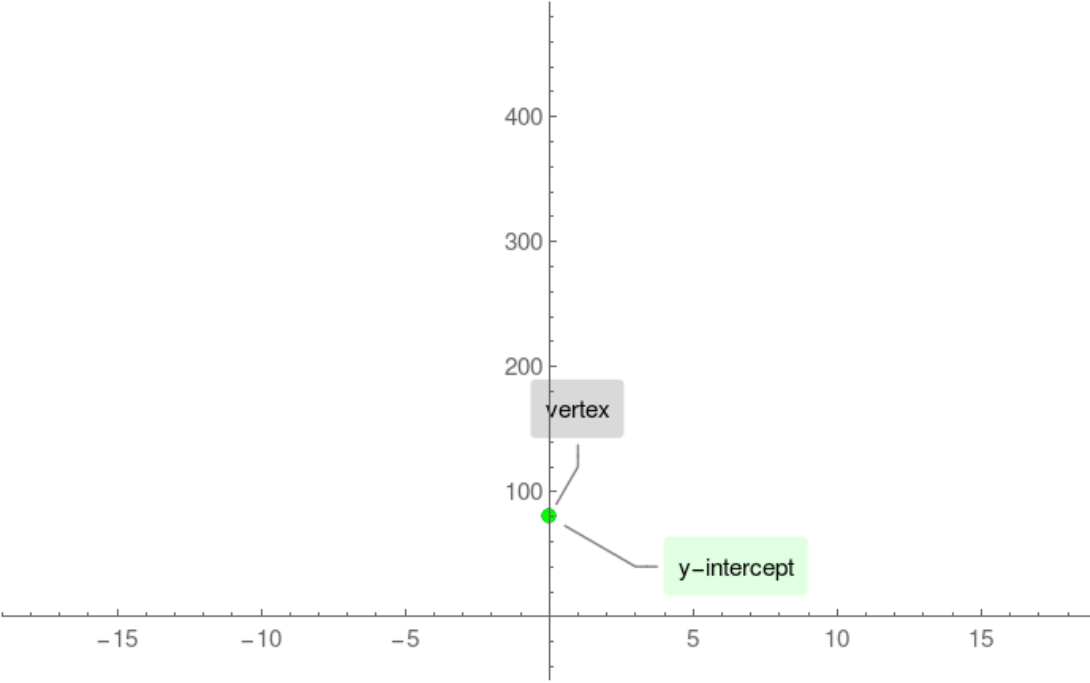
vertex = (0, 80)



#### Step 2.

Compute y-intercept and plot single point:

y-intercept = (0, 80)

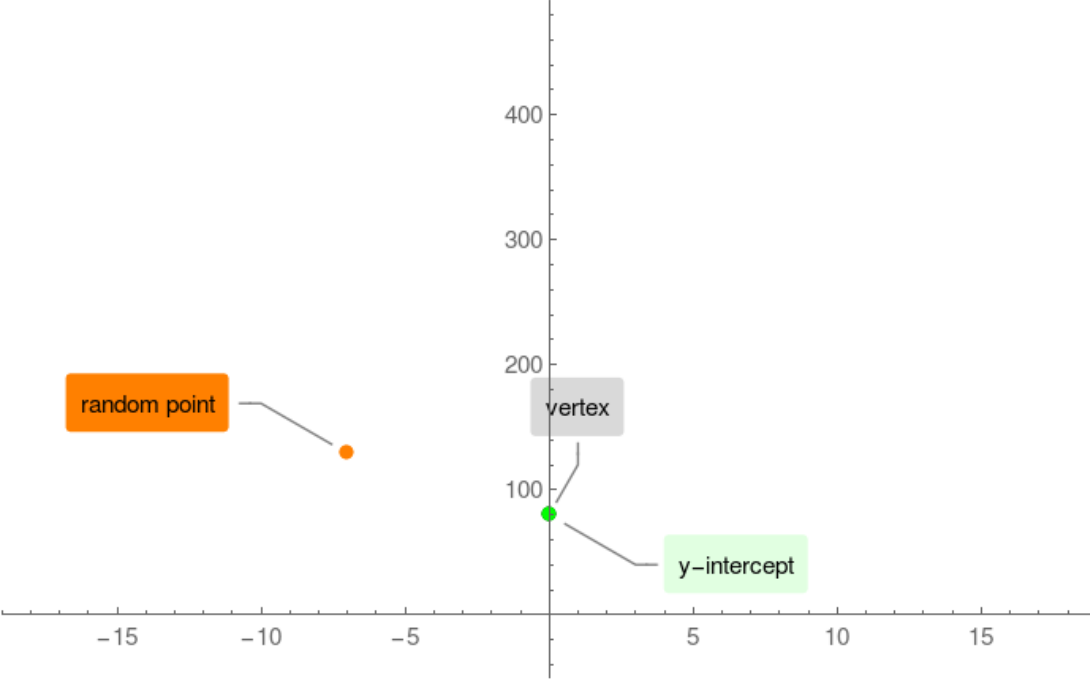


#### Step 3.

There are no d-intercepts!

Instead compute an arbitrary point on any side of vertex:

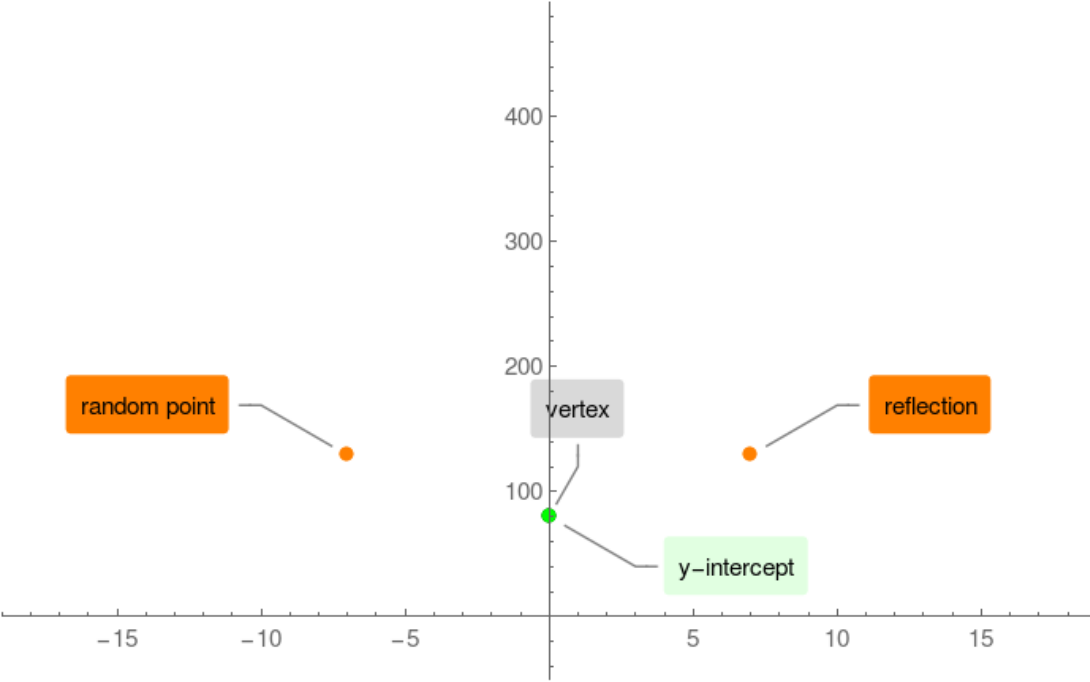
Random point = (-7, 129)



#### Step 4.

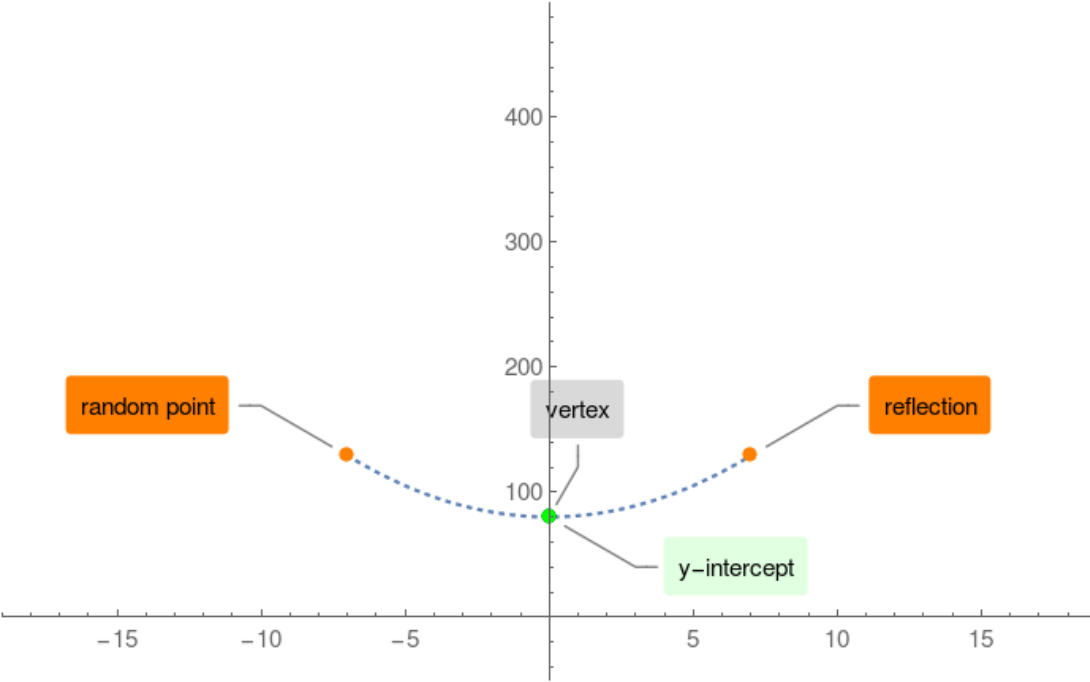
Reflect the point against the vertex's vertical axes:

Reflection = (7, 129)



#### Step 5.

connect the above computed points:



#### Step 6.

Extend the parabola beyond the range of intercepts

