

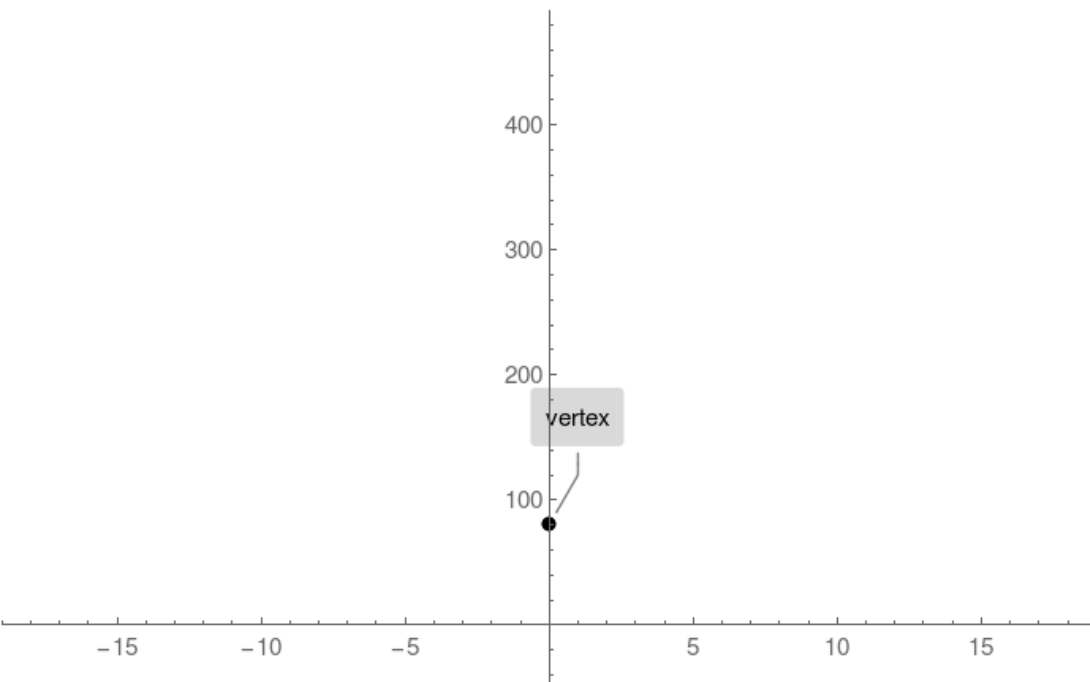
Example 3. Vertex equal to vertical intercept

Plot $k(t) = t^2 + 80$

Step 1.

Compute vertex and plot single point:

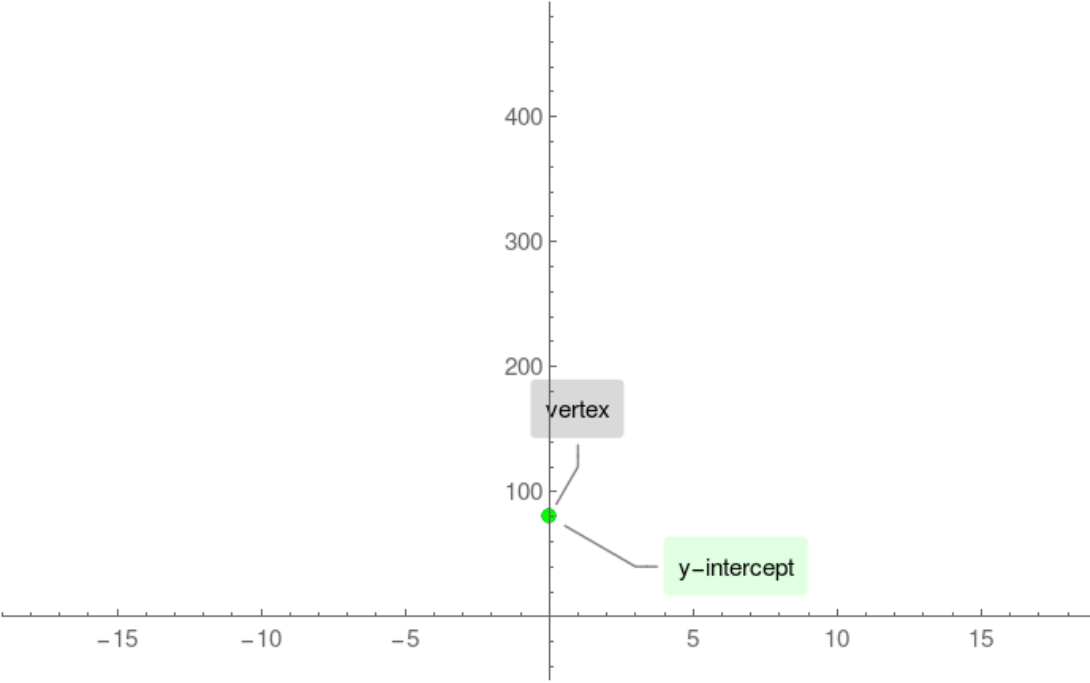
vertex = $(0, 80)$



Step 2.

Compute k-intercept and plot single point:

k-intercept = $(0, 80)$

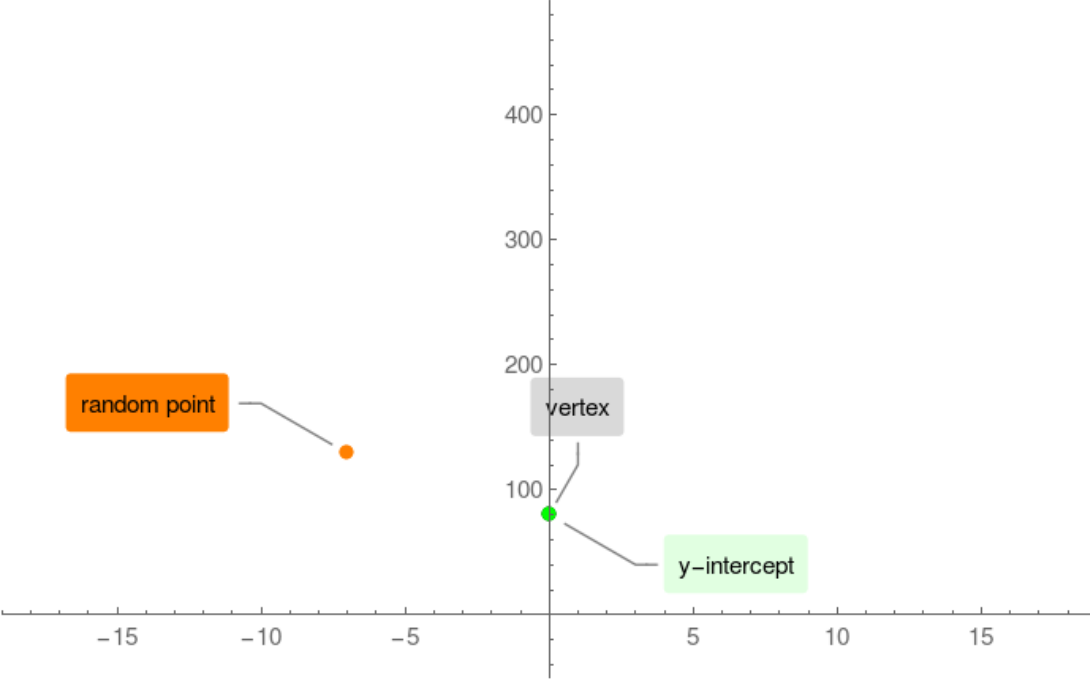


Step 3.

There are no t-intercepts!

Instead compute an arbitrary point on any side of vertex:

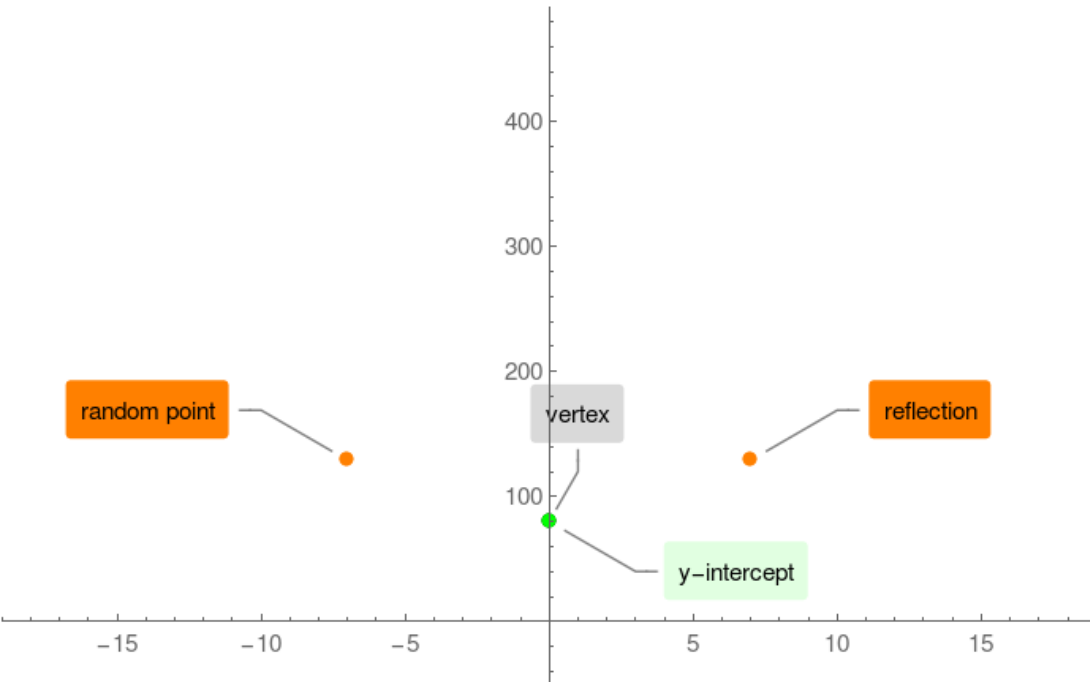
Random point = $(-7, 129)$



Step 4.

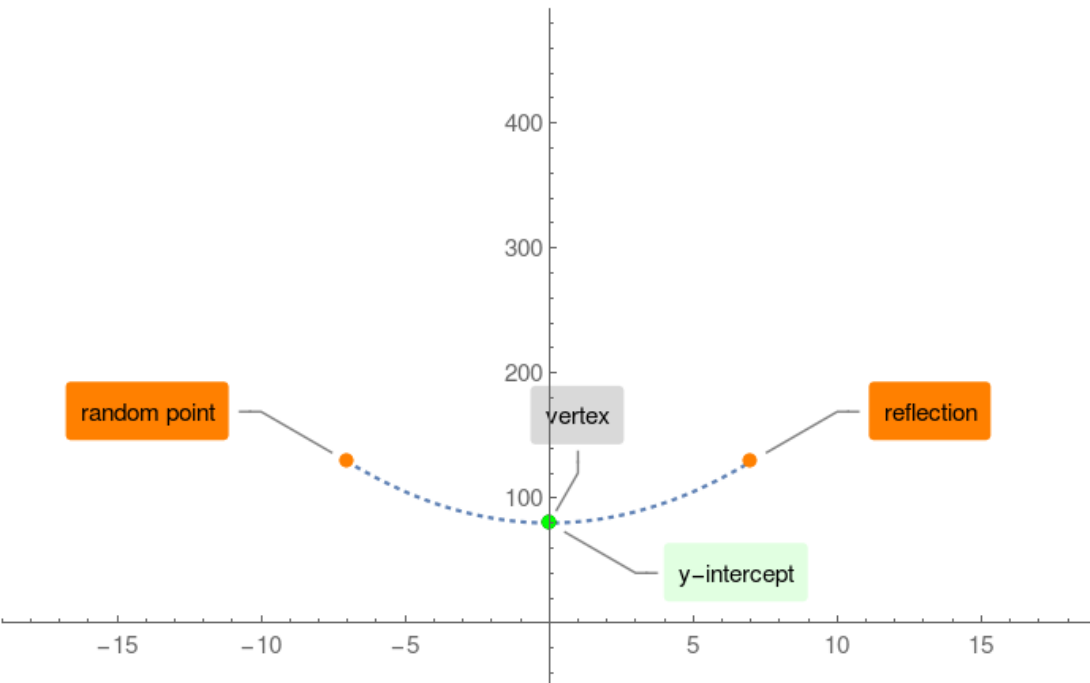
Reflect the point against the vertex's vertical axes:

Reflection = $(7, 129)$



Step 5.

connect the above computed points:



Step 6.

Extend the parabola beyond the range of intercepts

