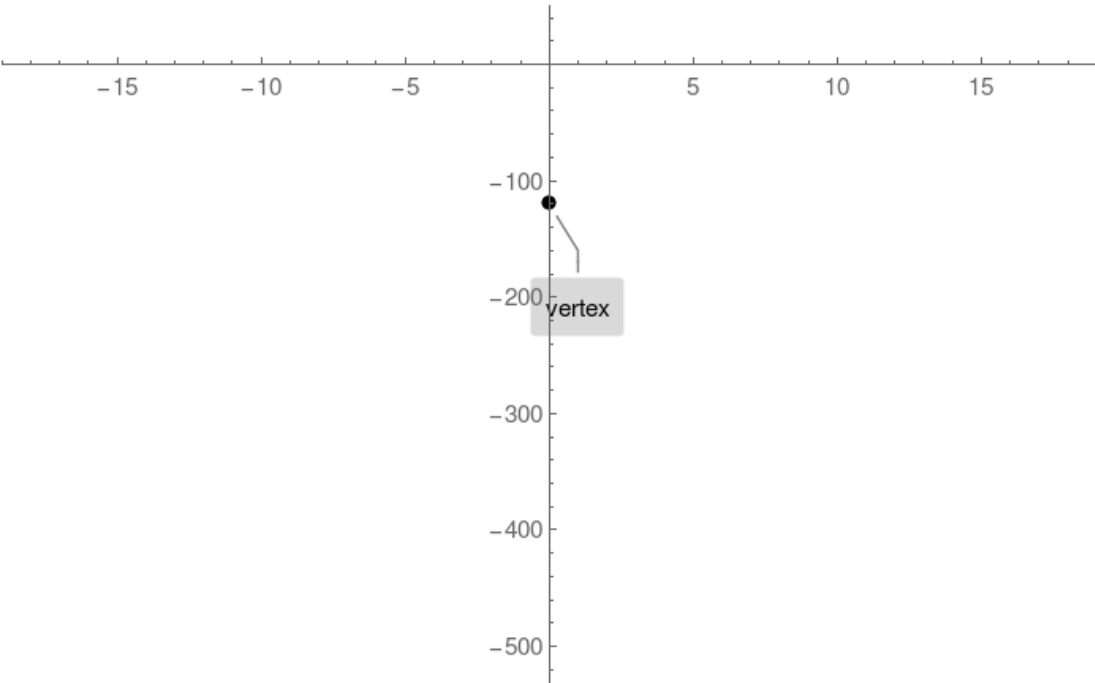# Example 3. Vertex equal to vertical intercept

Plot $e(j) = -j^2 - 120$

Step 1.
Compute vertex and plot single point:
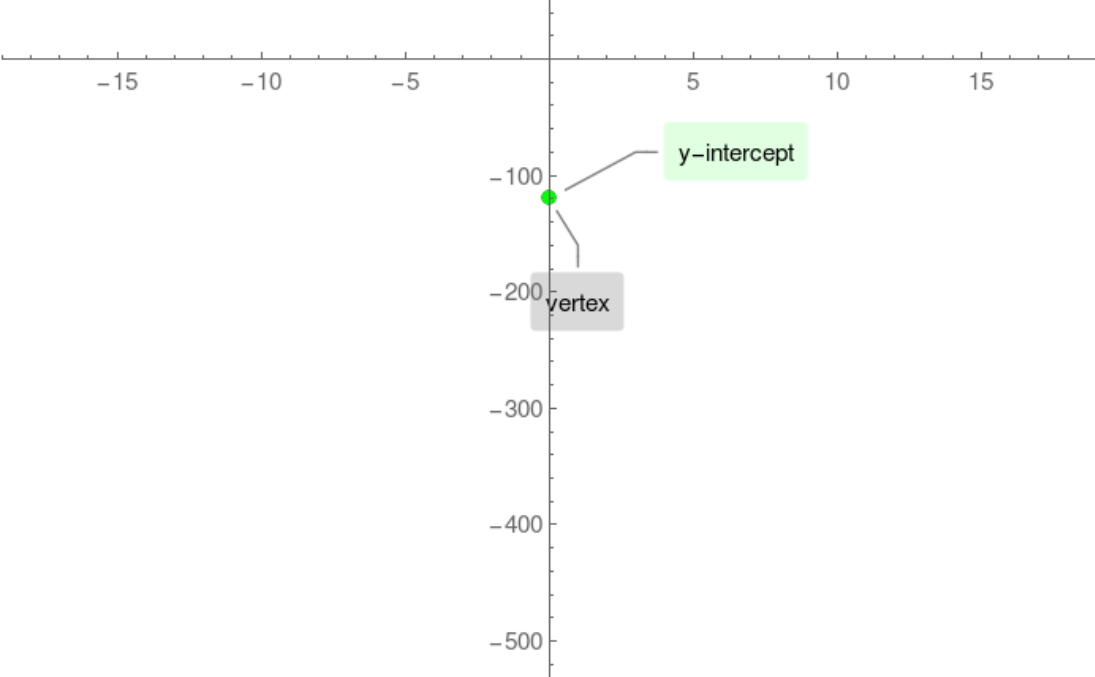vertex $= (0, -120)$

Step 2.
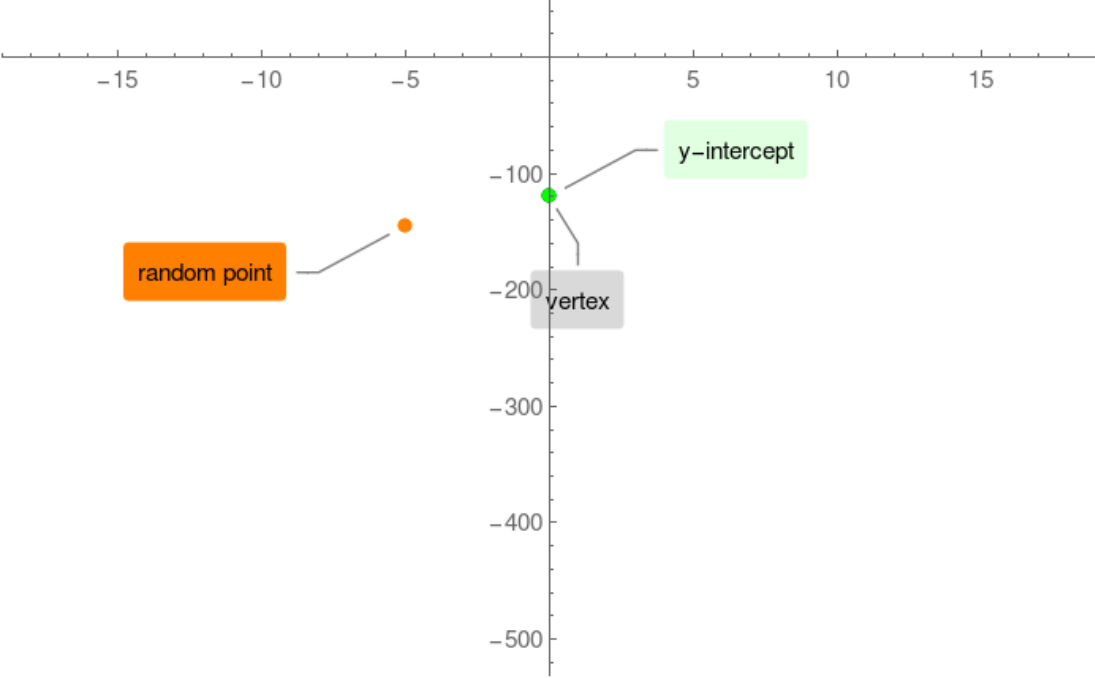Compute e-intercept and plot single point:
e-intercept $= (0, -120)$

Step 3.
There are no j-intercepts!
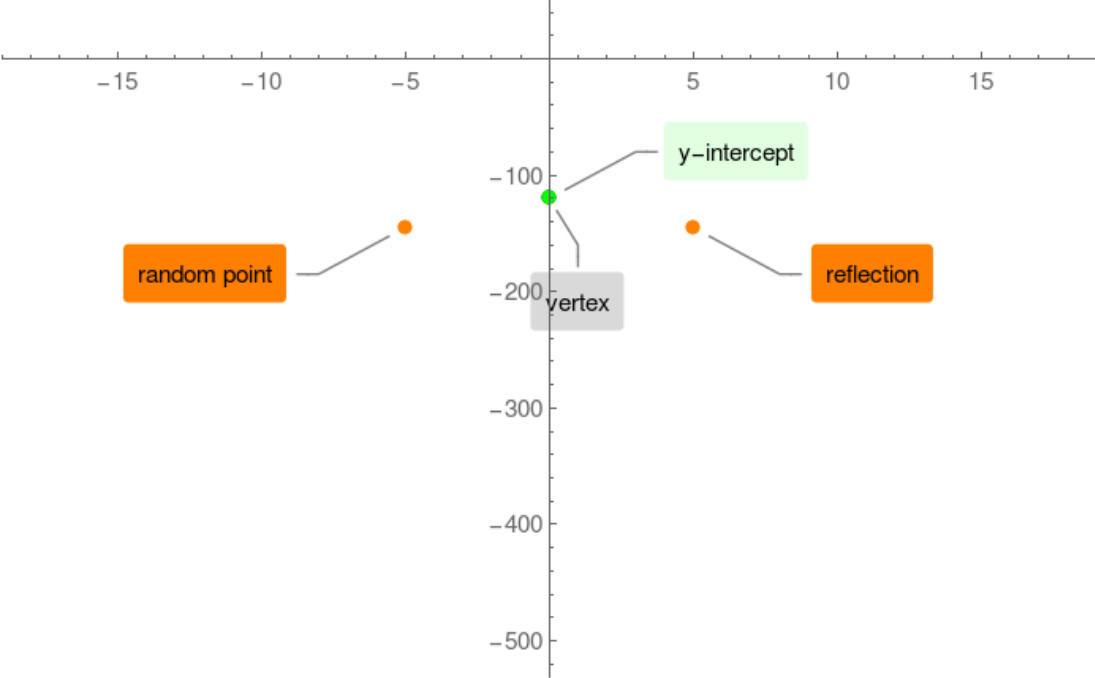Instead compute an arbitrary point on any side of vertex:
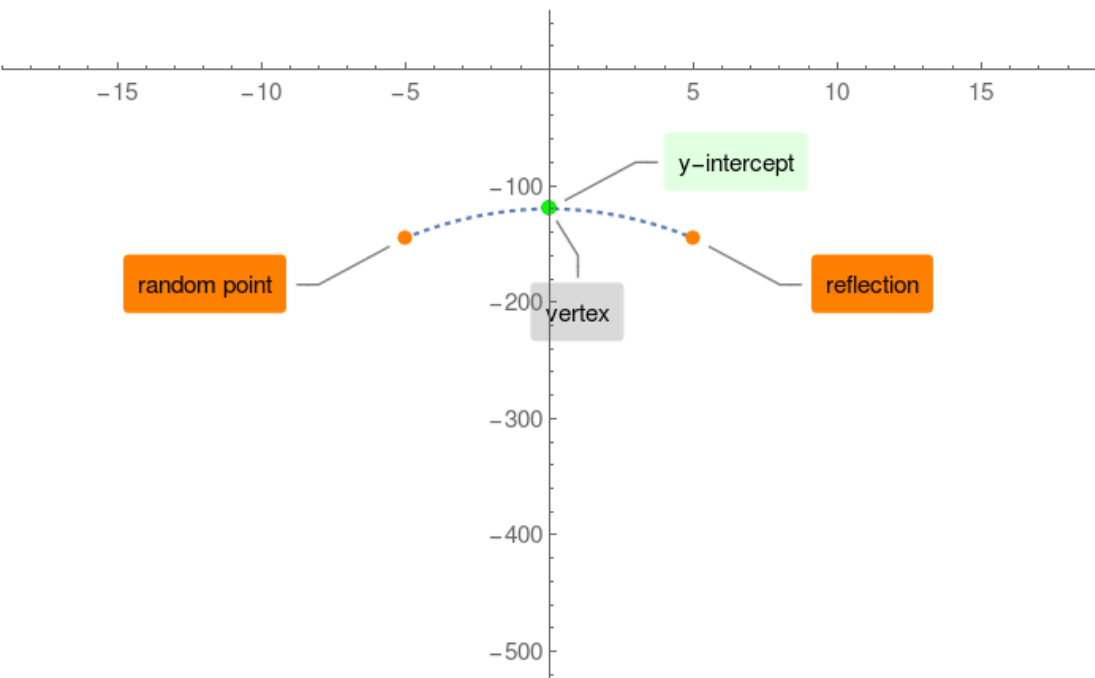Random point $= (-5, -145)$

Step 4.
Reflect the point against the vertex's vertical axes:
Reflection $= (5, -145)$

Step 5.
connect the above computed points:

Step 6.
Extend the parabola beyond the range of intercepts