Example 1. 2 horizontal intercepts found
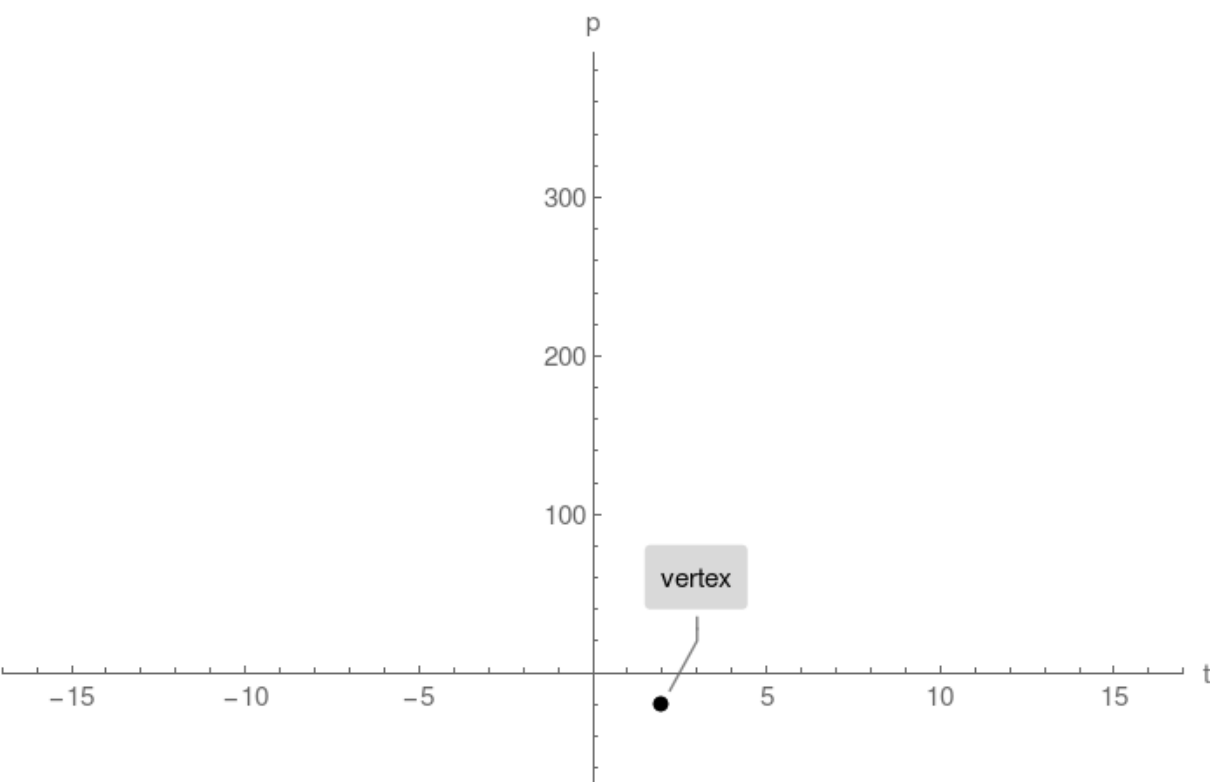
Plot $p(t) = t^2 - 4t - 16$

Step 1.
Compute vertex and plot single point:
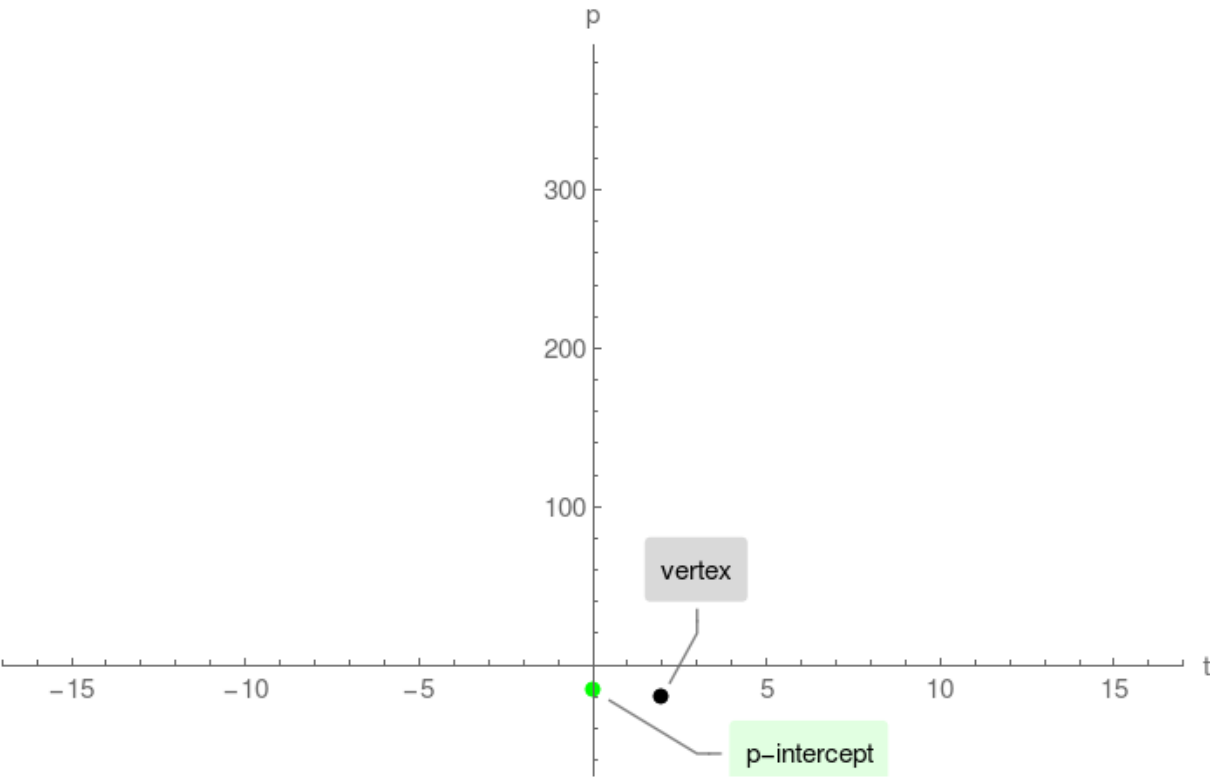vertex $= (2, -20)$

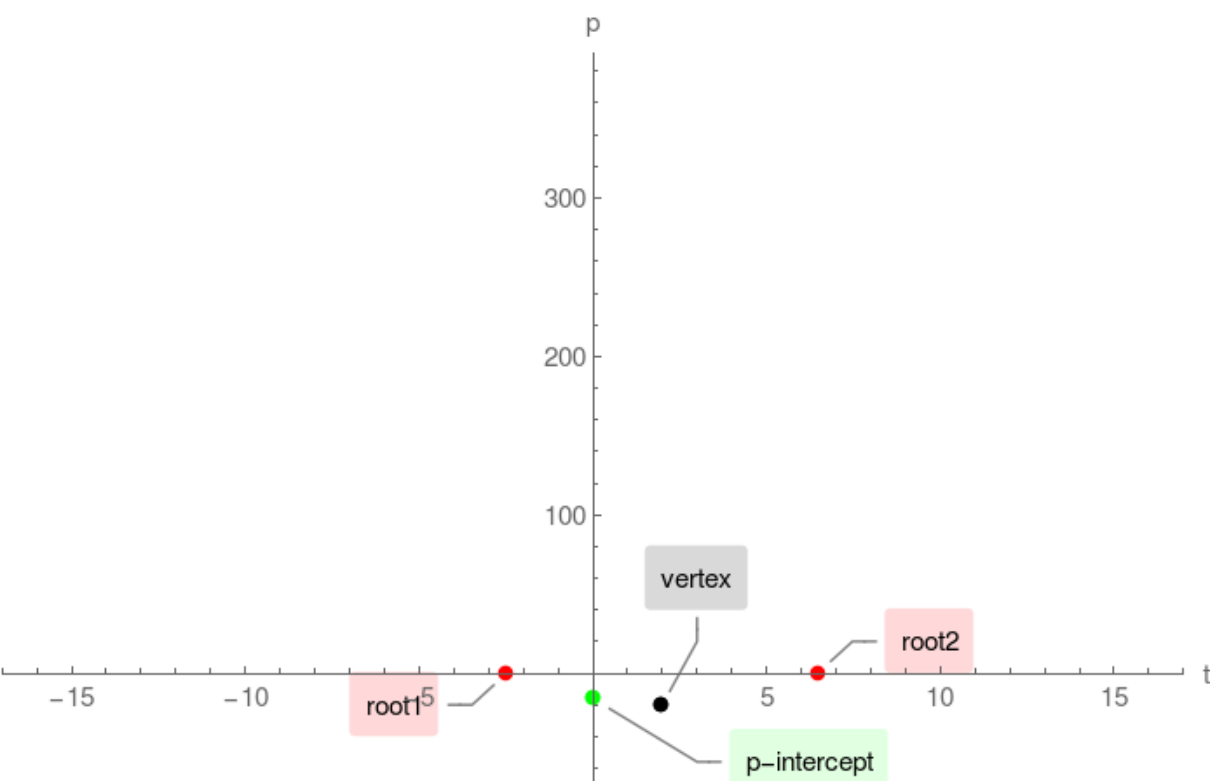**Step 2.**
Compute p-intercept and plot single point:
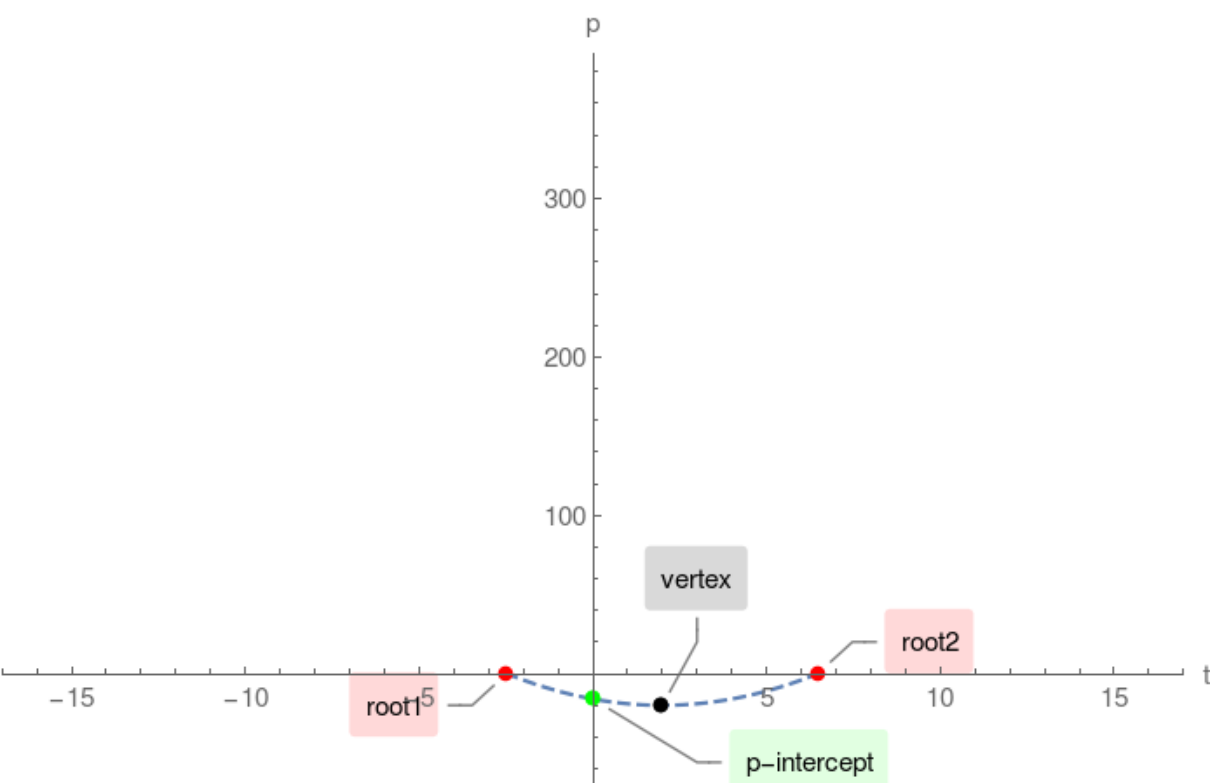p-intercept $= (0, -16)$

Step 3.
Compute t-intercepts by solving $t^2 - 4t - 16 = 0$:
$(2 - 2\sqrt{5}, 0)$, $(2 + 2\sqrt{5}, 0)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts