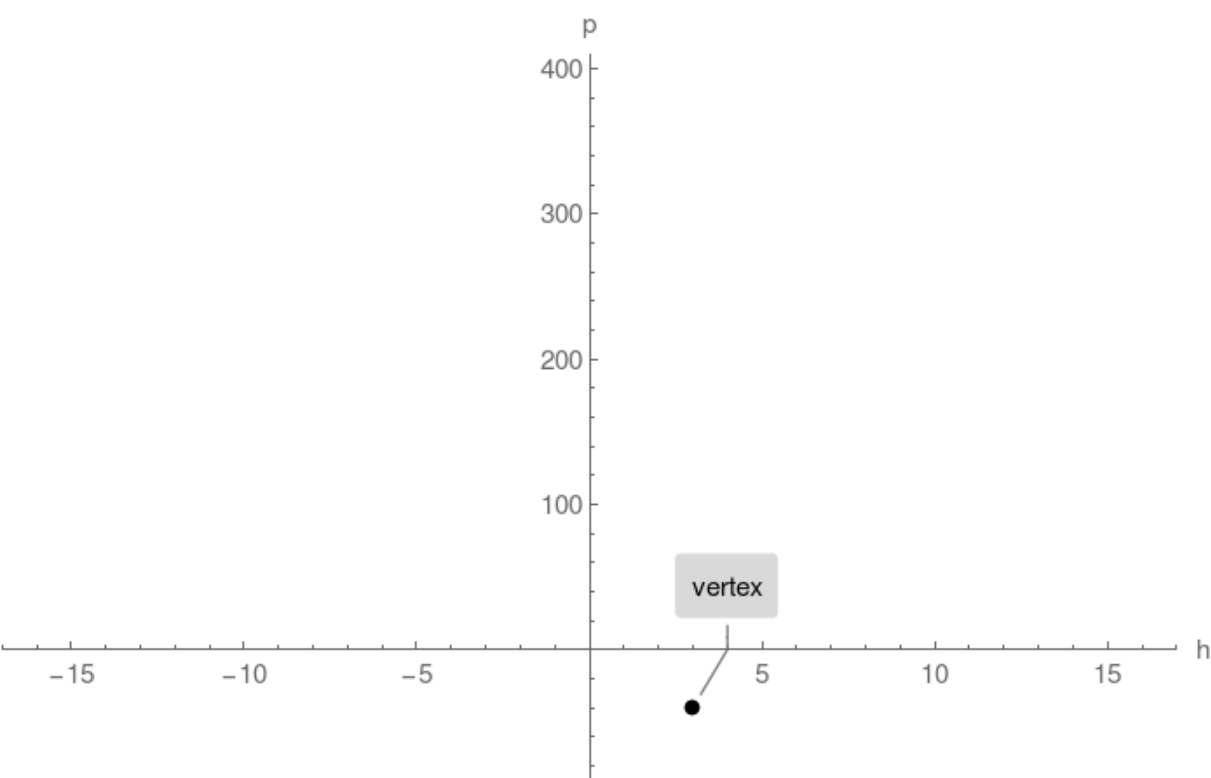# Example 1. 2 horizontal intercepts found

Plot $p(h) = h^2 - 6h - 31$

Step 1.
Compute vertex and plot single point:
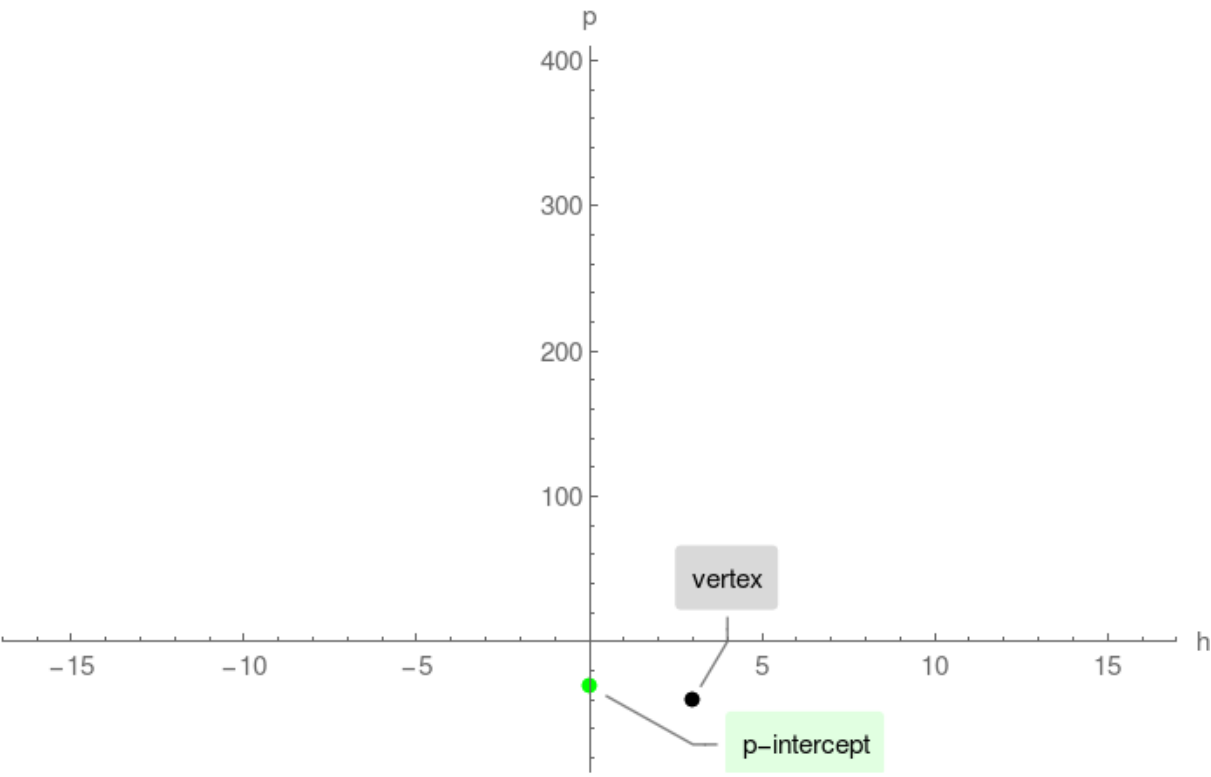vertex $= (3, -40)$

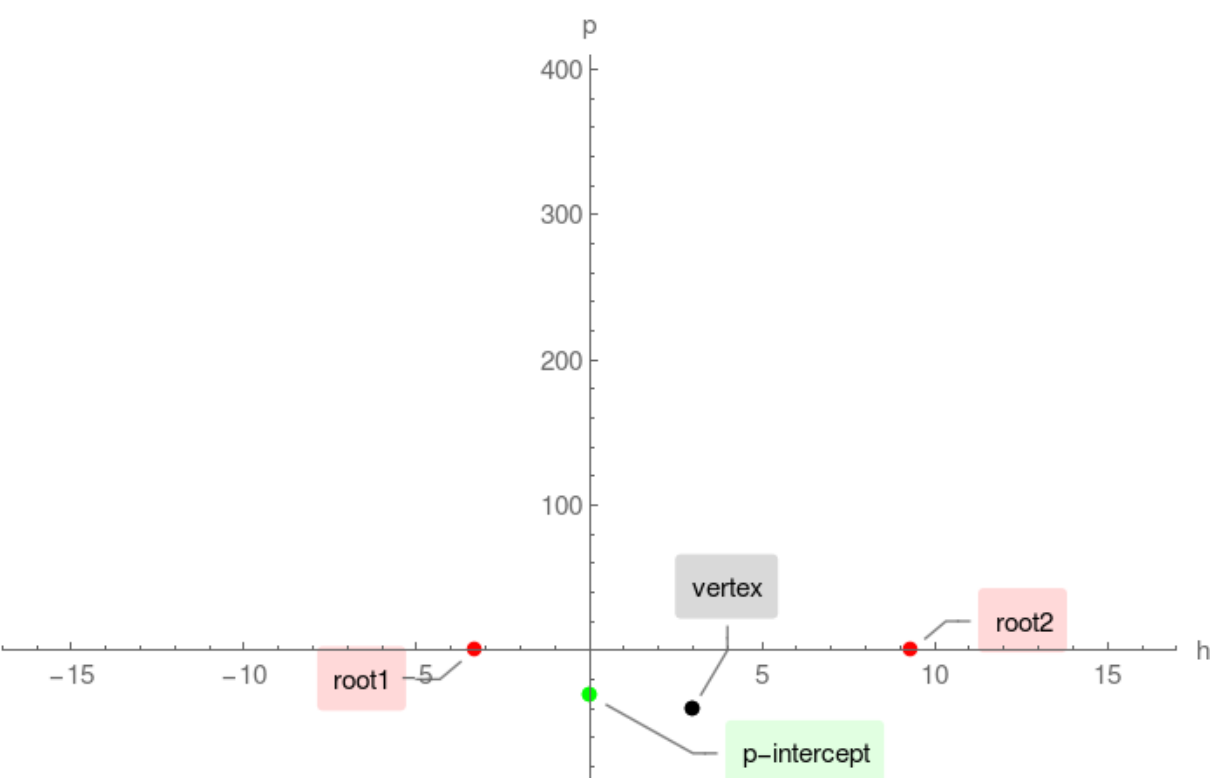**Step 2.**
Compute p-intercept and plot single point:
p-intercept $= (0, -31)$

Step 3.
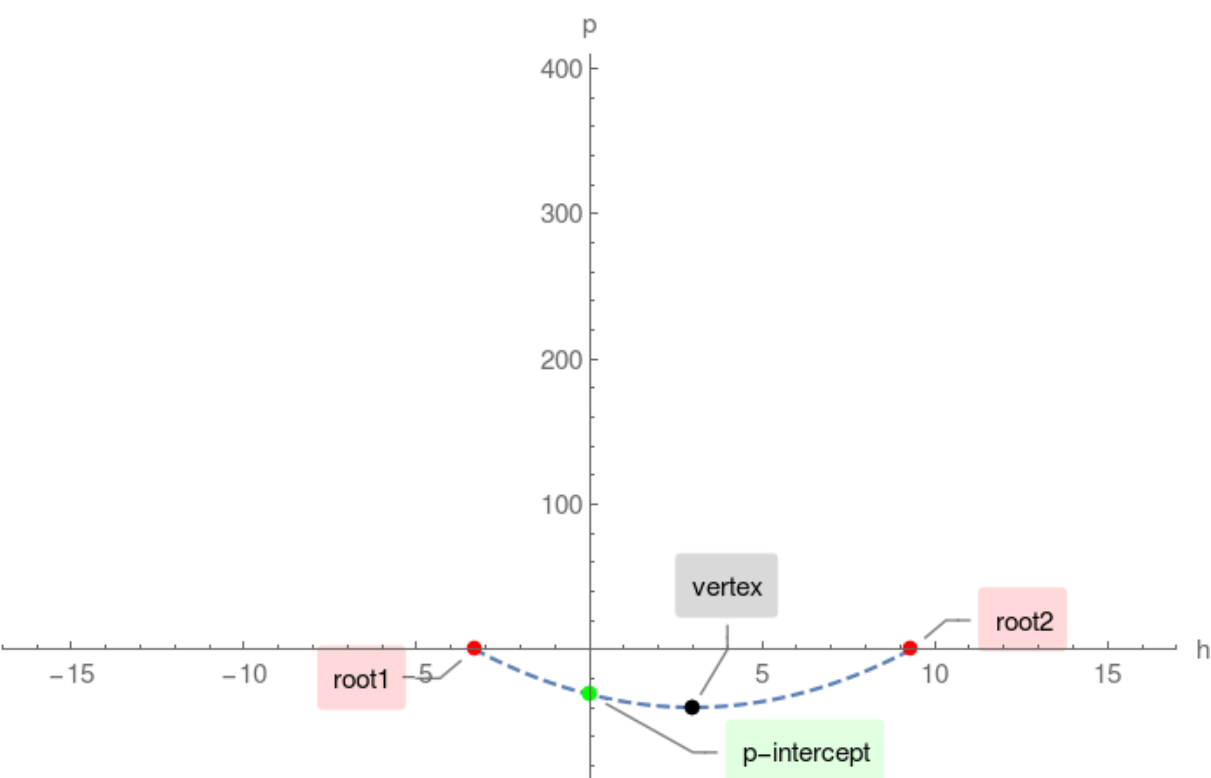Compute h-intercepts by solving $h^2 - 6h - 31 = 0$:
$(3 - 2\sqrt{10}, 0)$, $(3 + 2\sqrt{10}, 0)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts