Example 1. 2 horizontal intercepts found
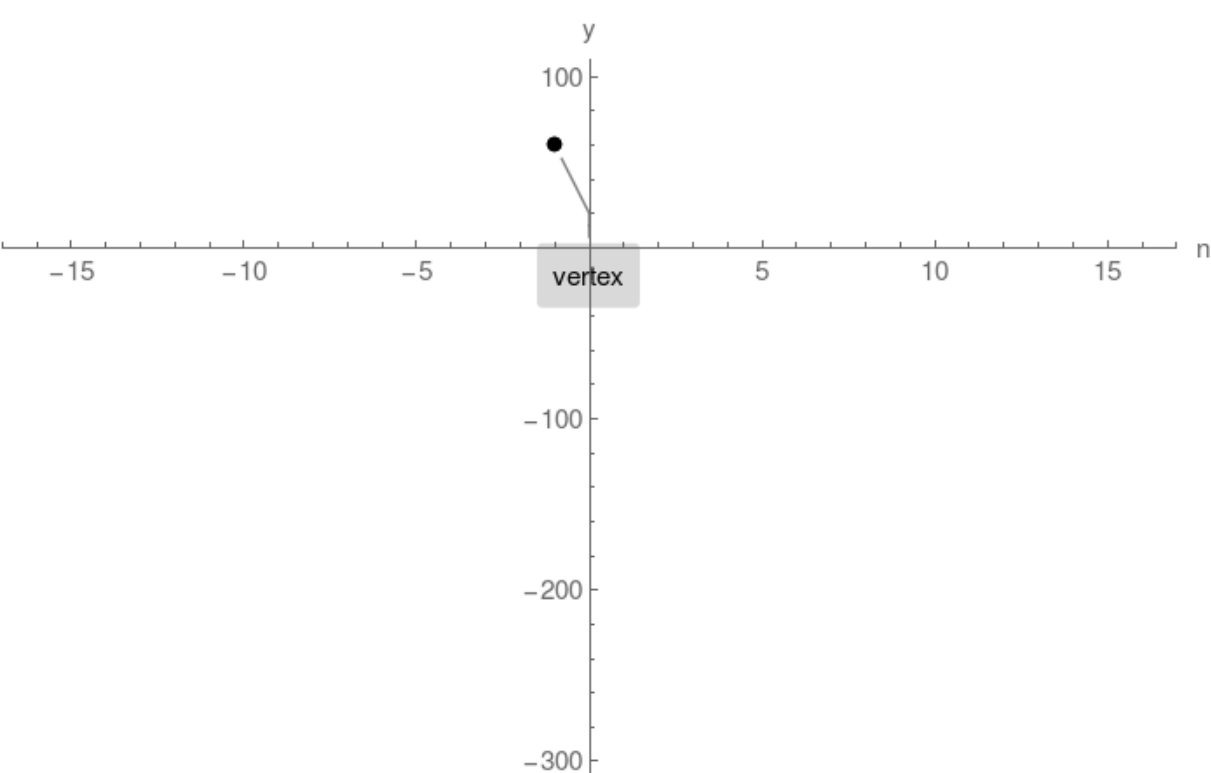
Plot $y(n) = -n^2 - 2n + 59$

Step 1.
Compute vertex and plot single point:
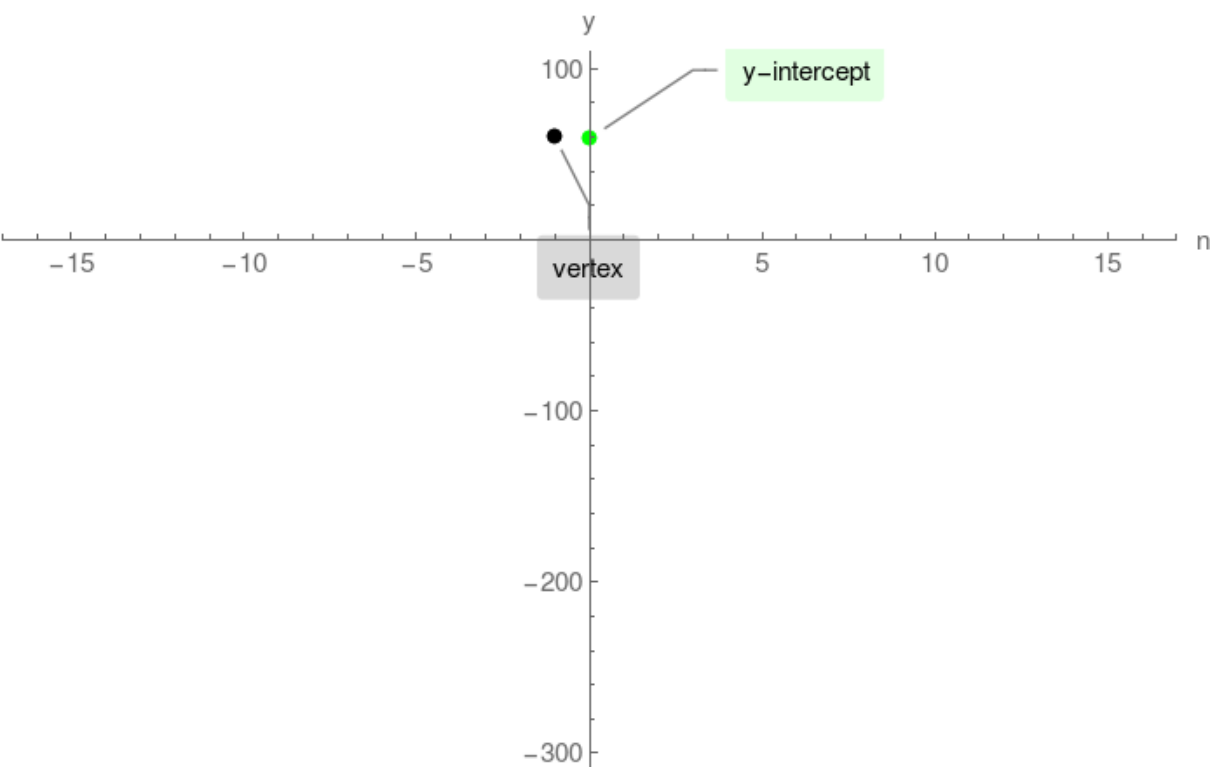vertex = $(-1, 60)$

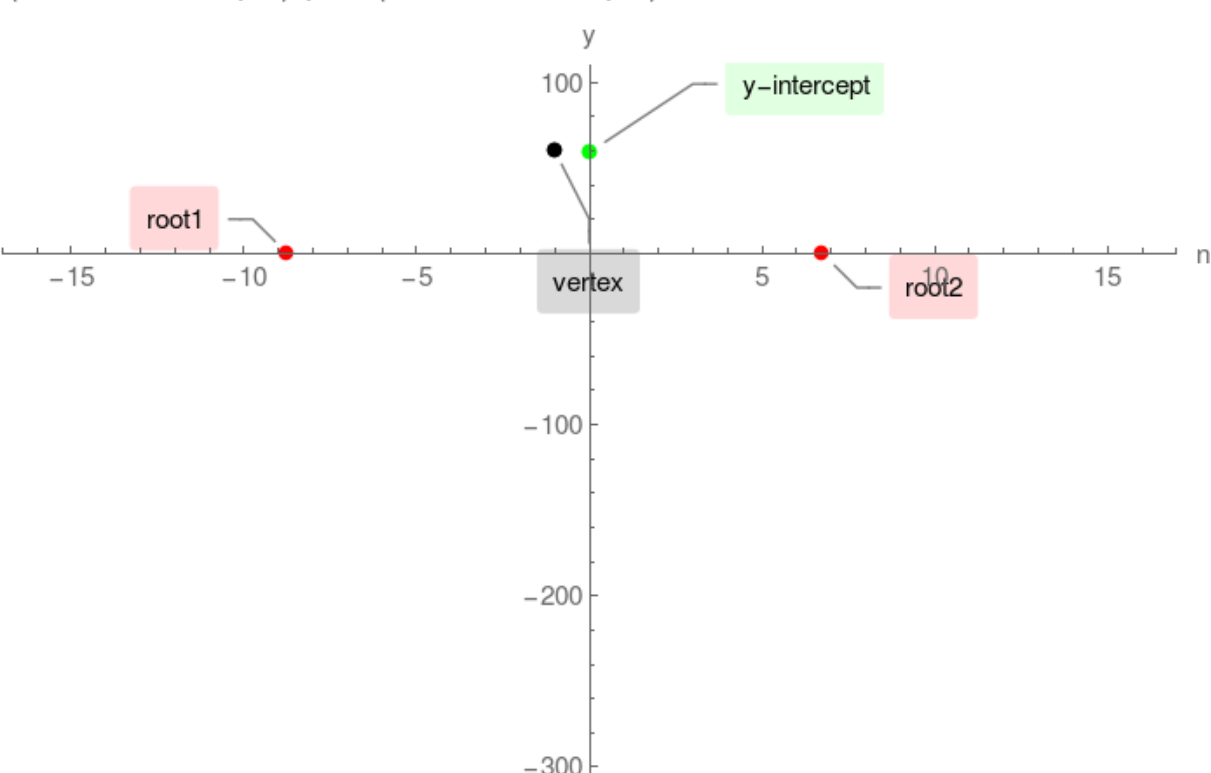**Step 2.**
Compute y-intercept and plot single point:
y-intercept = $(0, 59)$

Step 3.
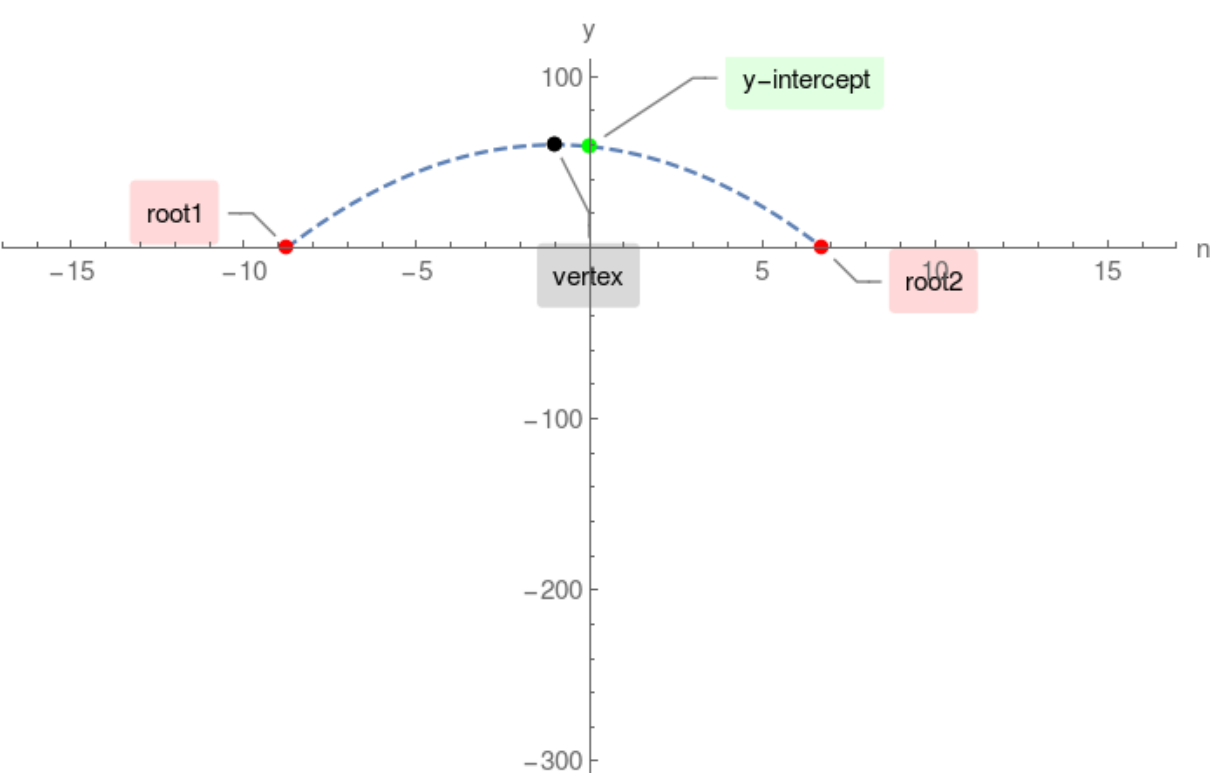Compute n-intercepts by solving $-n^2 - 2n + 59 = 0$:
$(-1 - 2\sqrt{15}, 0)$, $(-1 + 2\sqrt{15}, 0)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts