

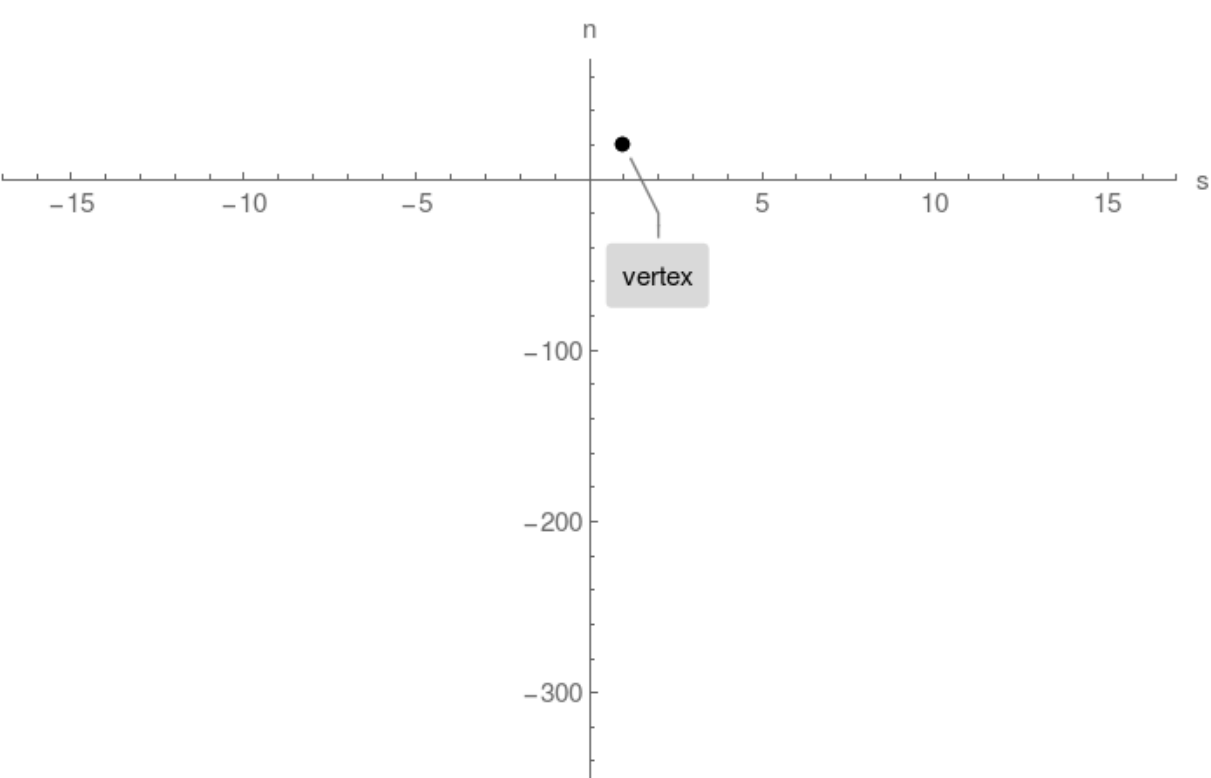
Example 1. 2 horizontal intercepts found

Plot $n(s) = -s^2 + 2s + 19$

Step 1.

Compute vertex and plot single point:

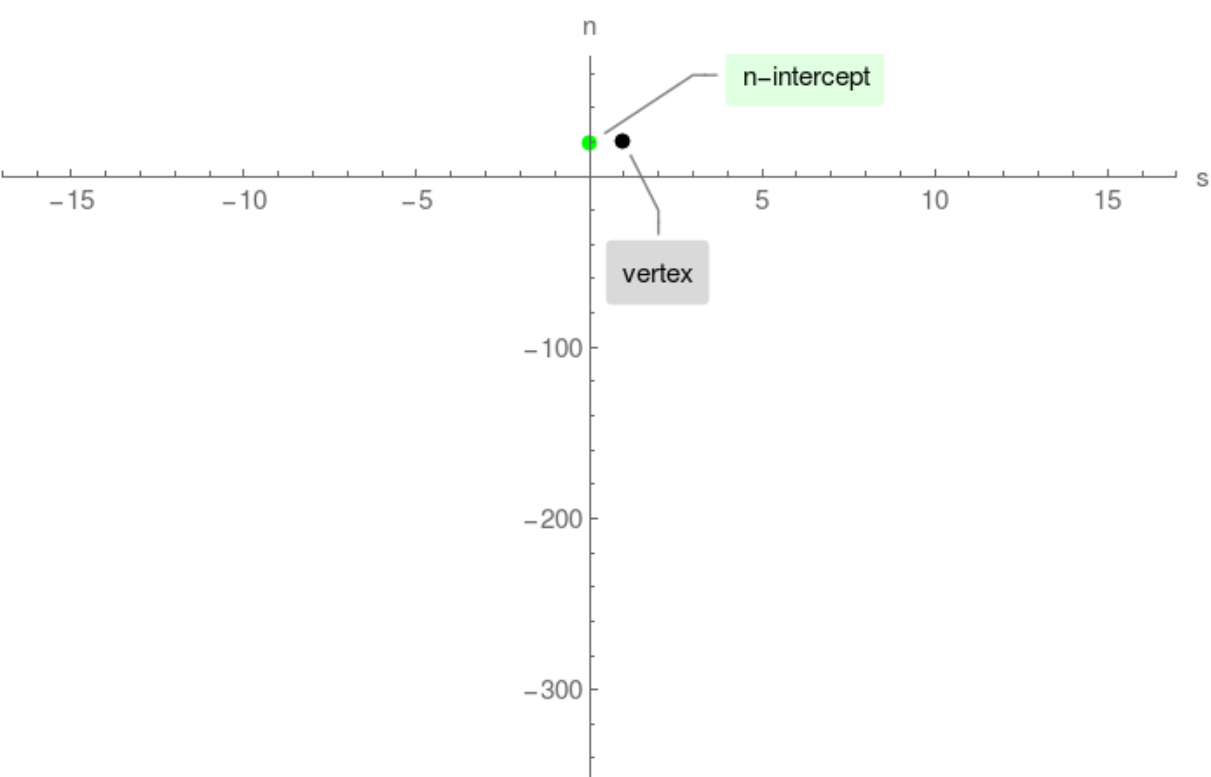
vertex = $(1, 20)$



Step 2.

Compute n-intercept and plot single point:

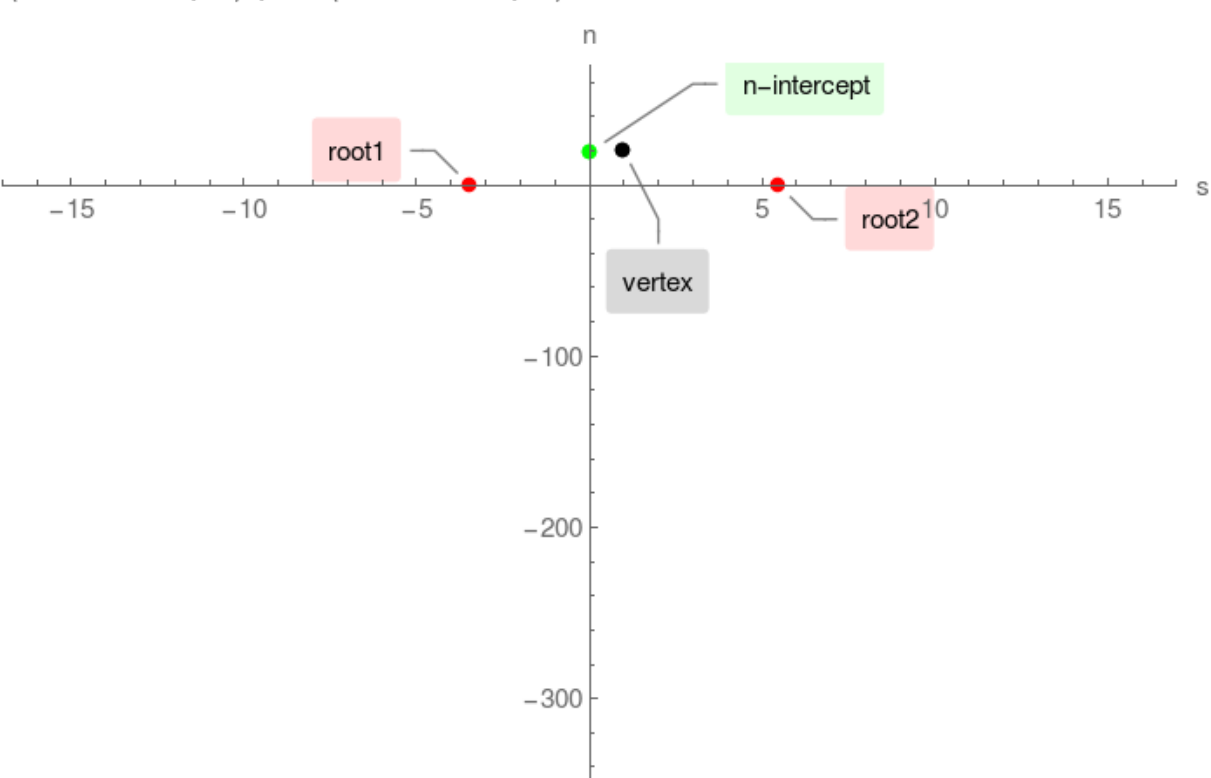
n-intercept = $(0, 19)$



Step 3.

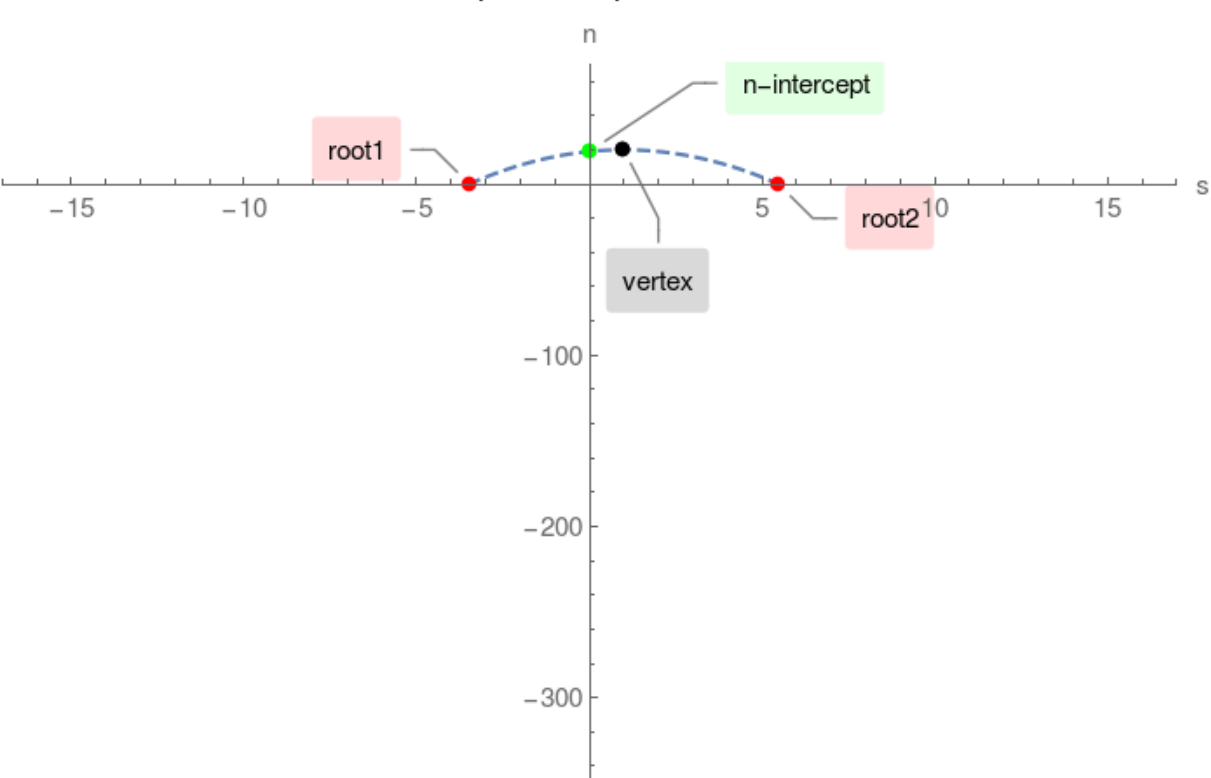
Compute s-intercepts by solving $-s^2 + 2s + 19 = 0$:

$(1 - 2\sqrt{5}, 0)$, $(1 + 2\sqrt{5}, 0)$



Step 4.

connect the above computed points:



Step 5.

Extend the parabola beyond the range of intercepts

