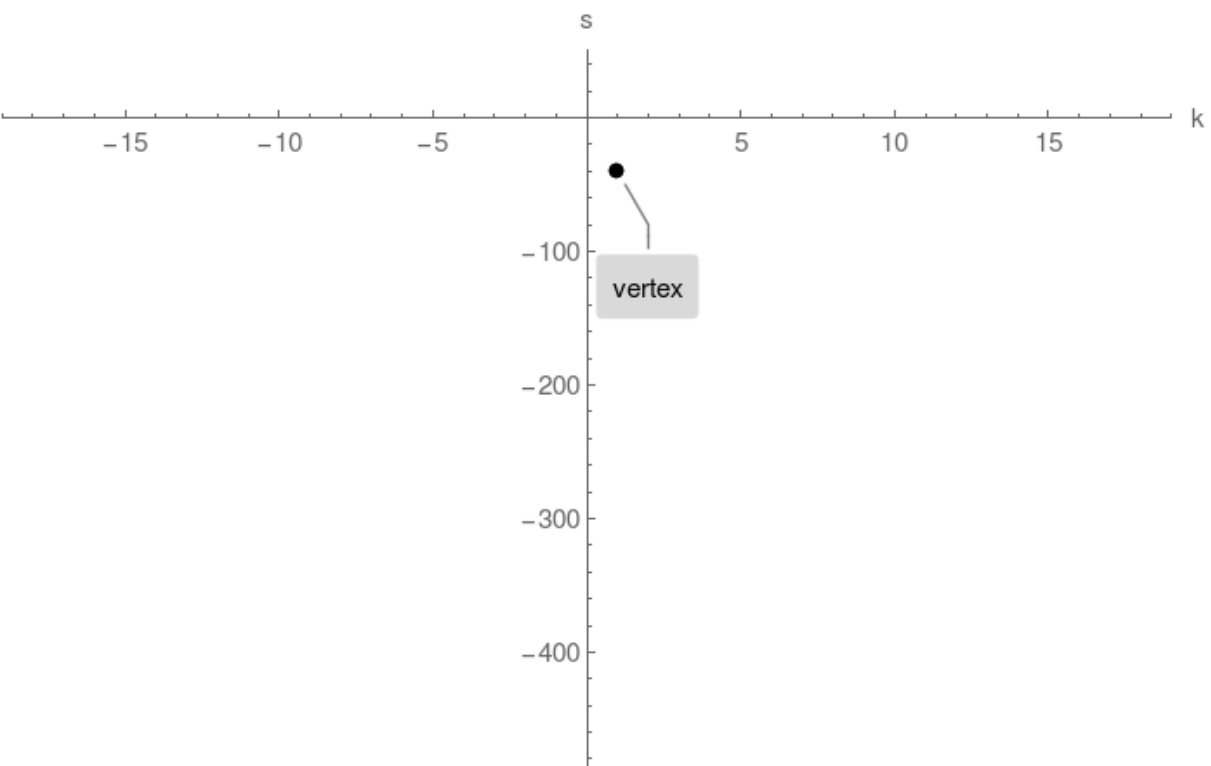# Example 2. No horizontal intercepts found

Plot $s(k) = -k^2 + 2k - 41$

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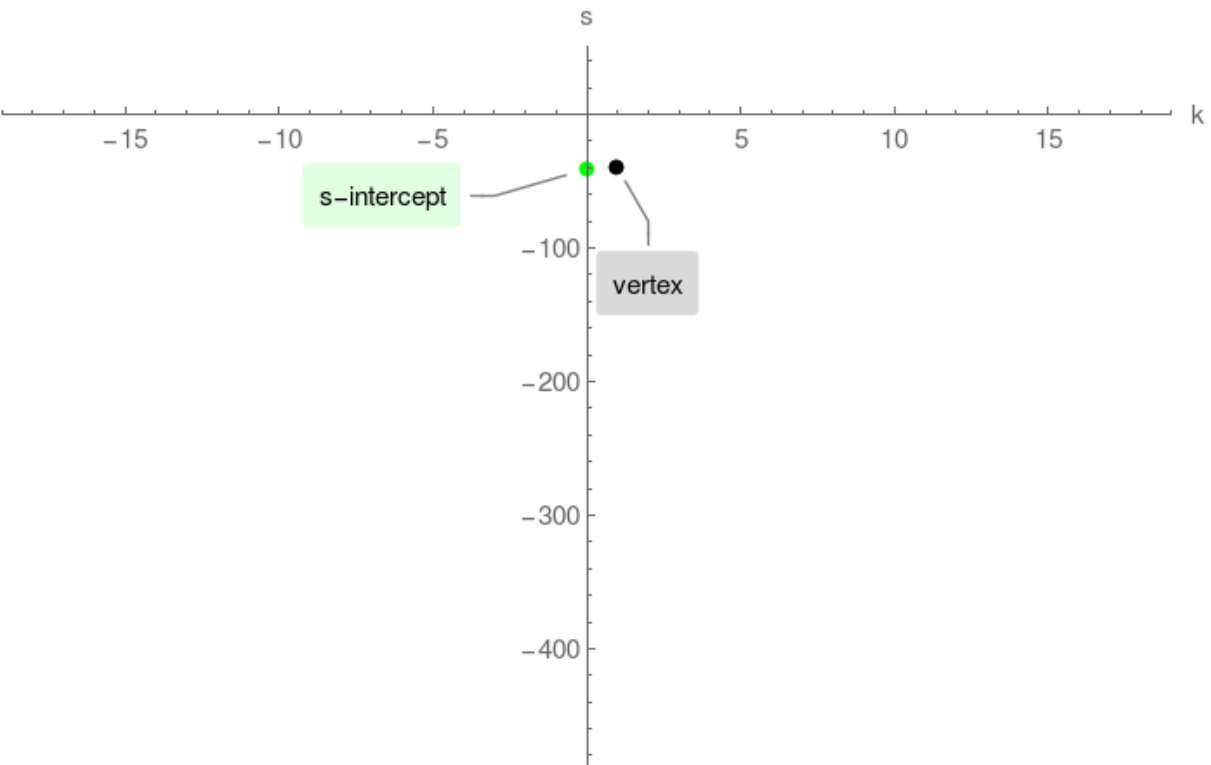vertex = $(1, -40)$

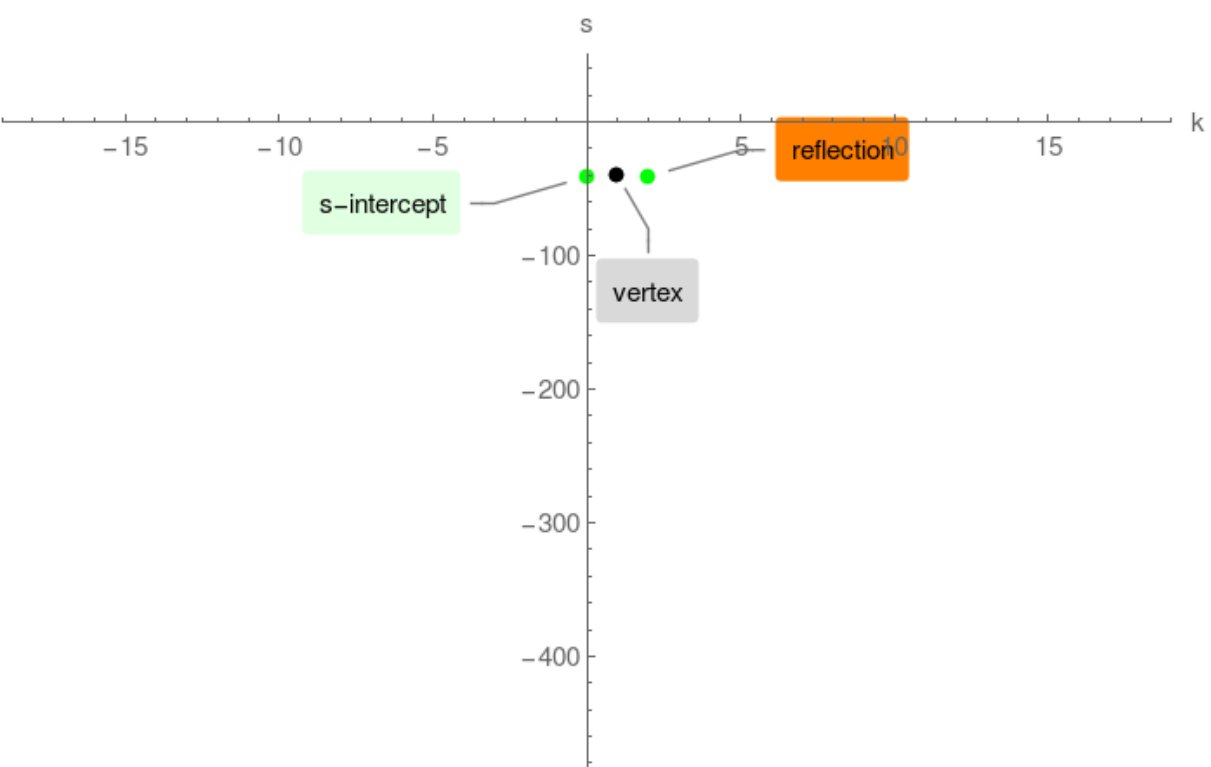## Step 2.
Compute s-intercept and plot single point:
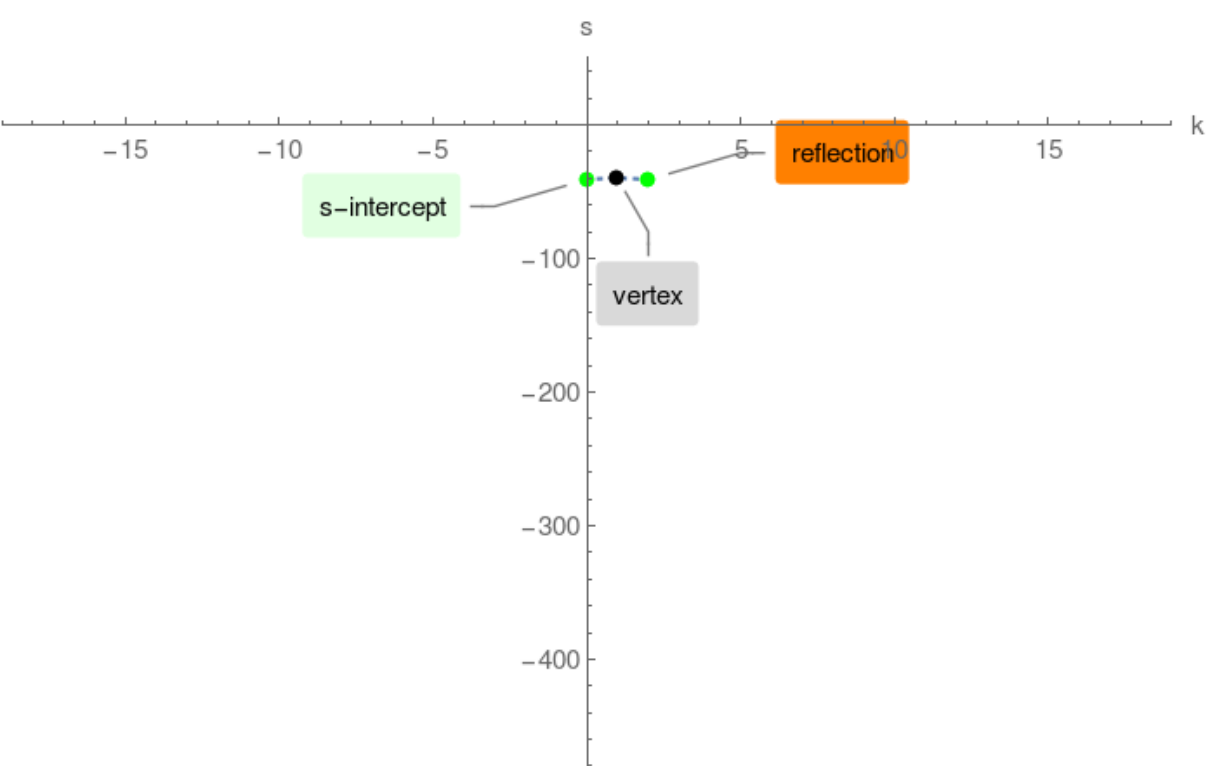s-intercept = $(0, -41)$

Step 3.
Compute s-intercept reflected against vertex,
reflection = $(2, -41)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts