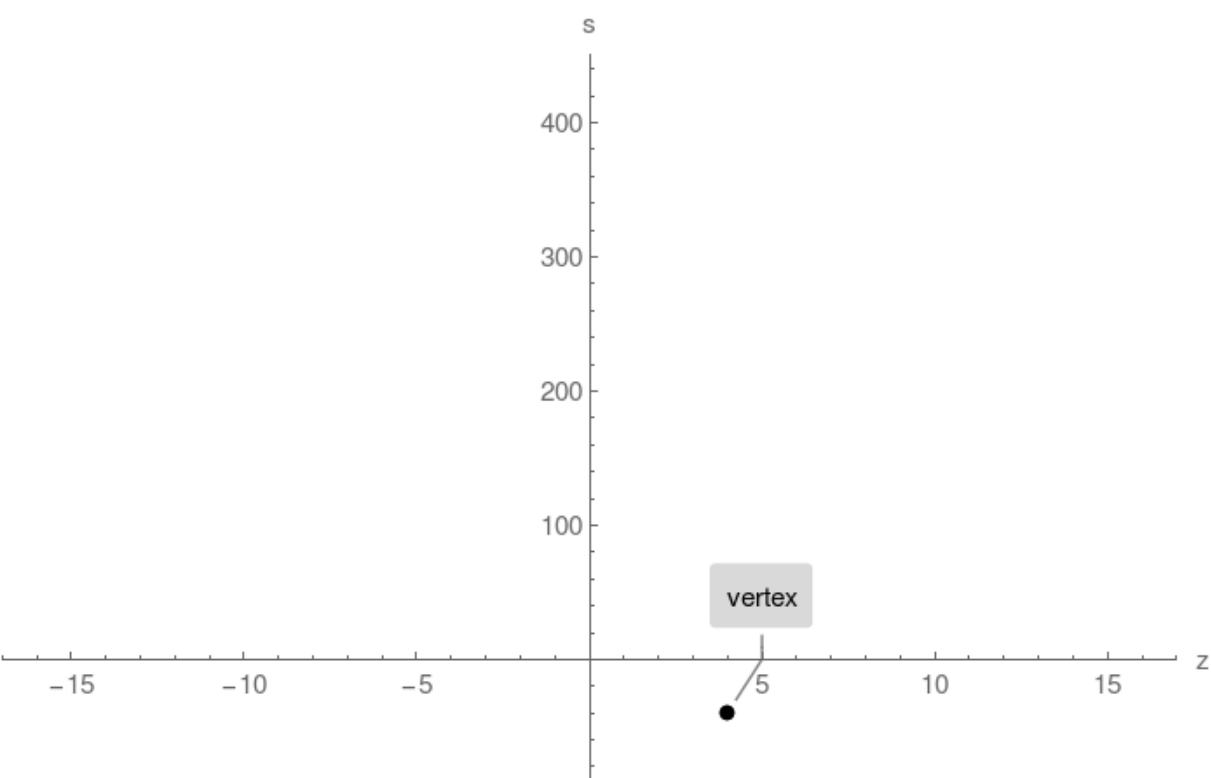# Example 1. 2 horizontal intercepts found

Plot $s(z) = z^2 - 8z - 24$

Step 1.
Compute vertex and plot single point:
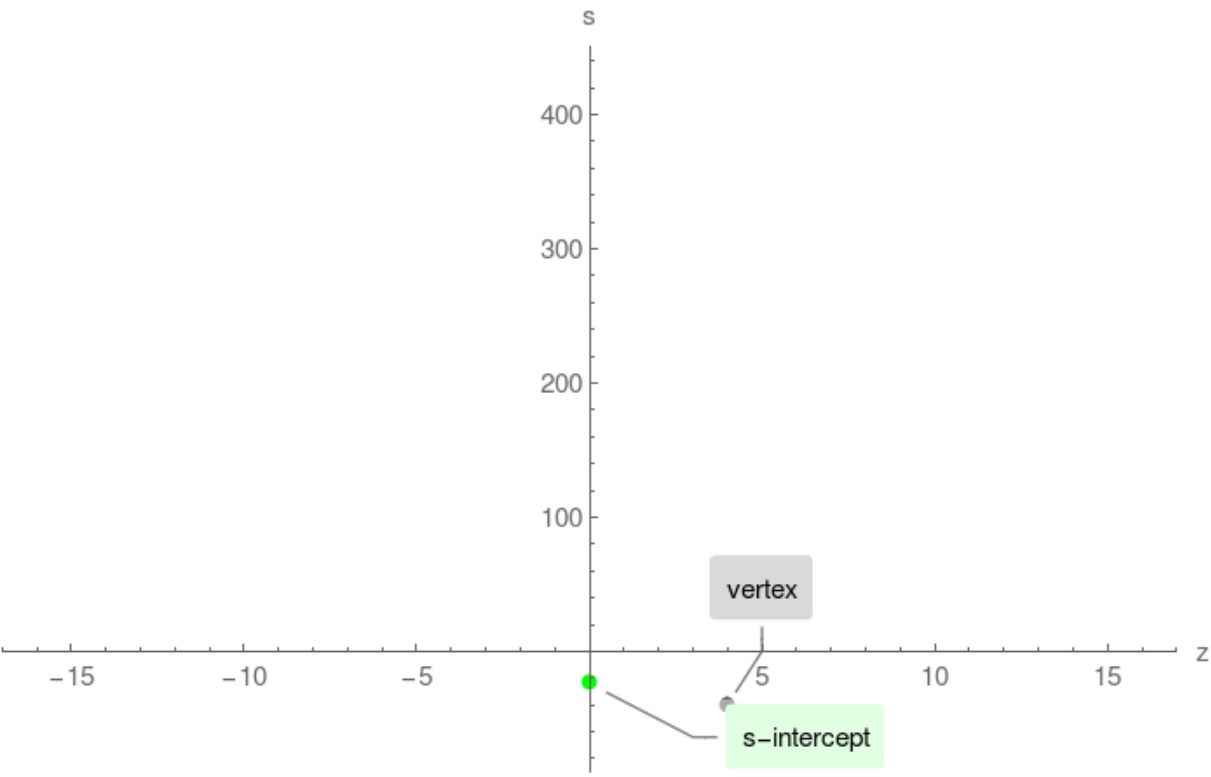vertex = $(4, -40)$

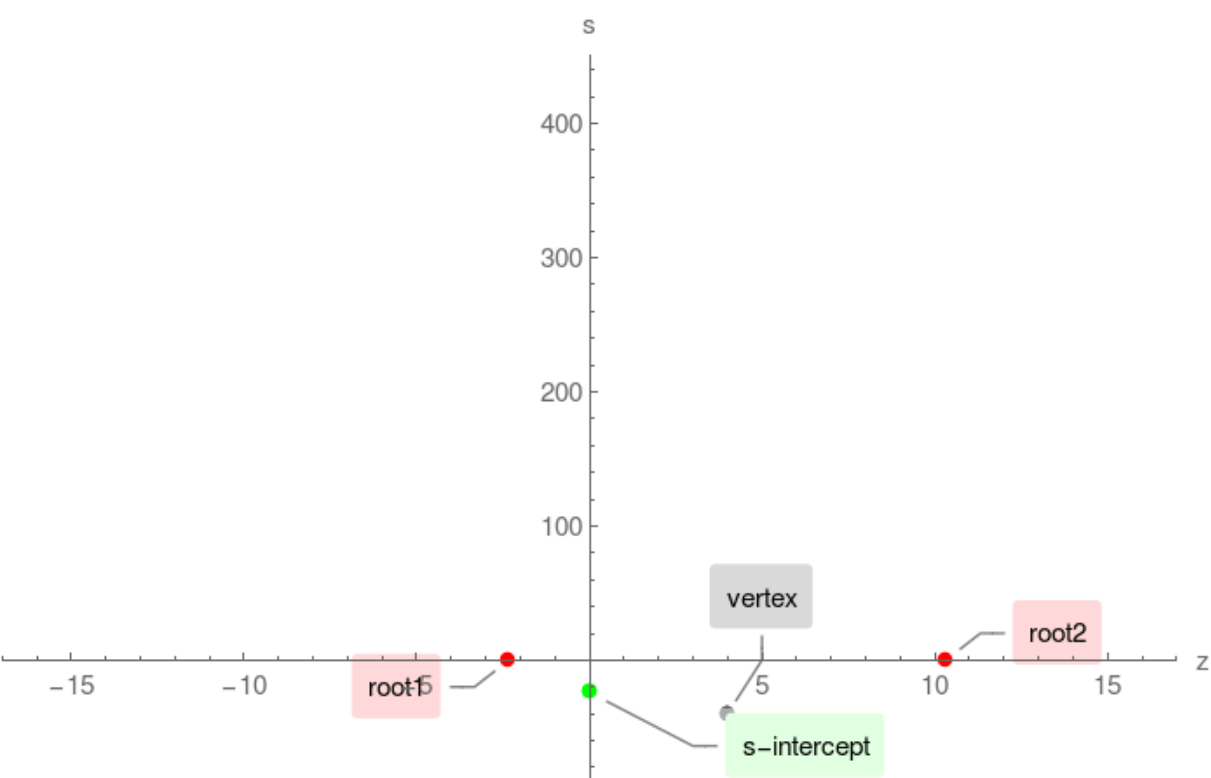**Step 2.**
Compute s-intercept and plot single point:
s-intercept = $(0, -24)$

Step 3.
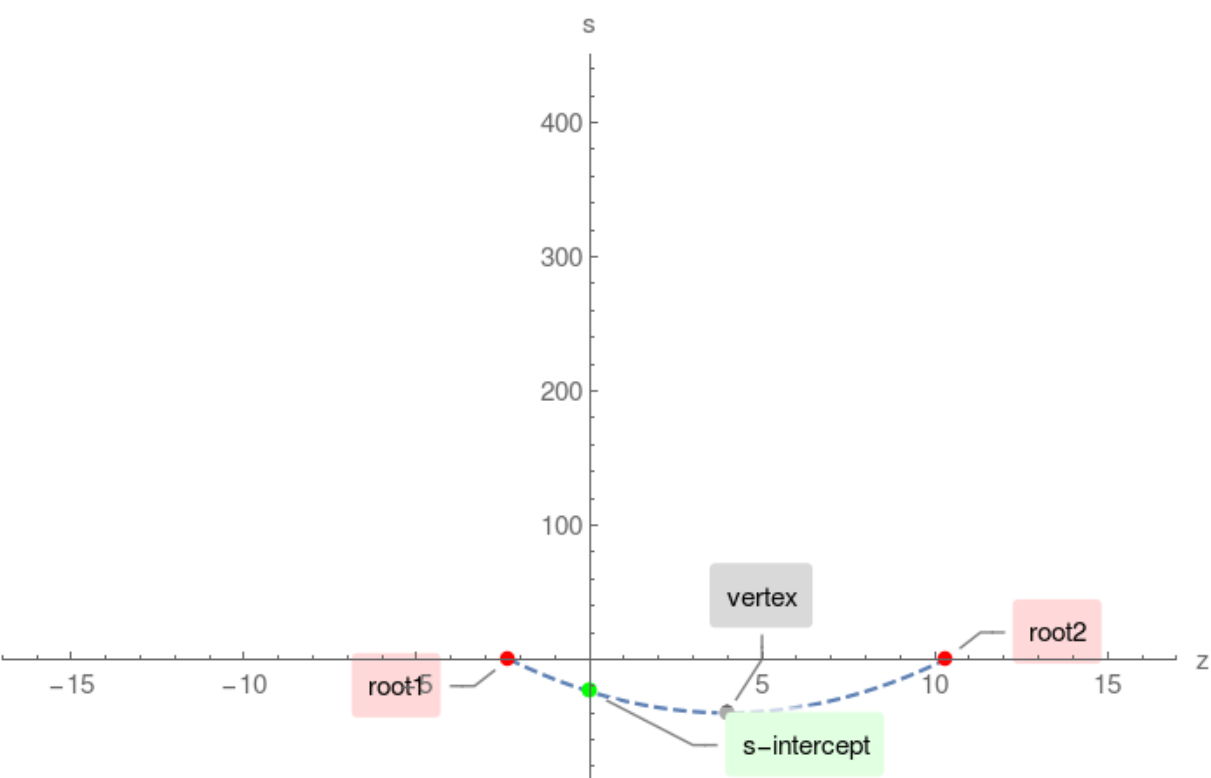Compute z-intercepts by solving $z^2 - 8z - 24 = 0$:
$(4 - 2\sqrt{10}, 0)$, $(4 + 2\sqrt{10}, 0)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts