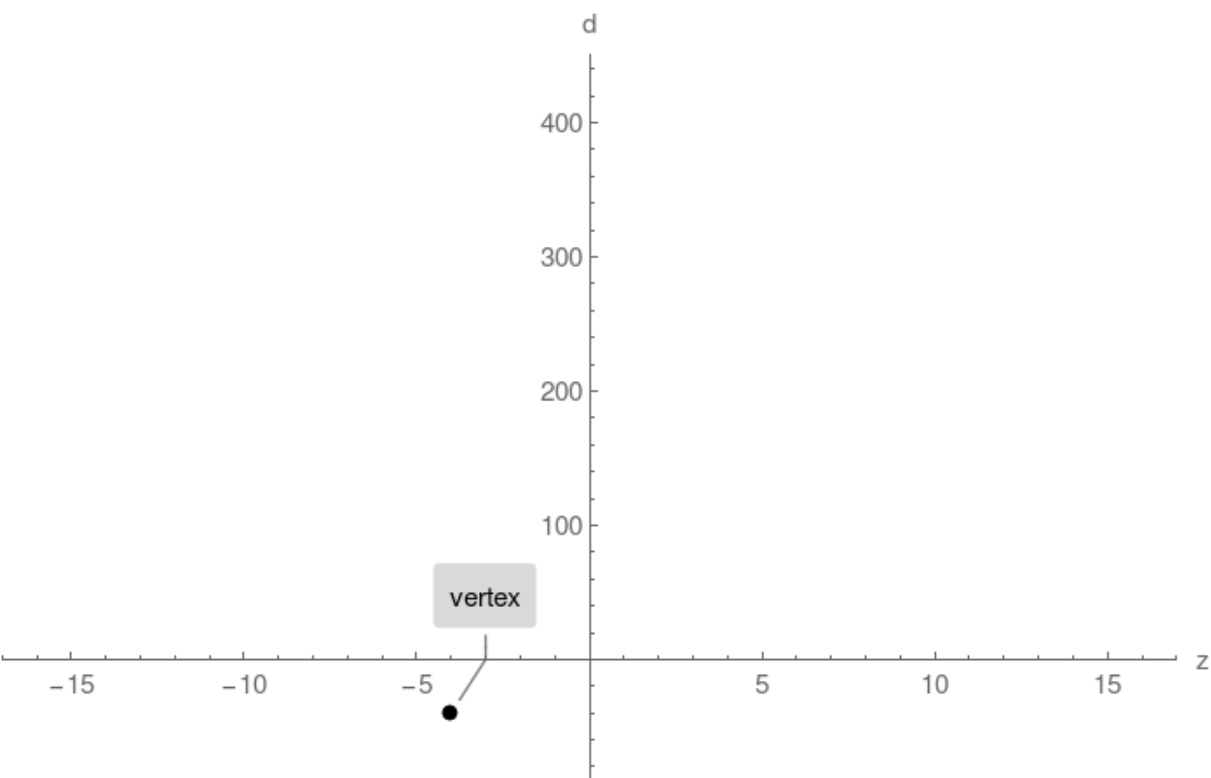# Example 1. 2 horizontal intercepts found

Plot $d(z) = z^2 + 8z - 24$
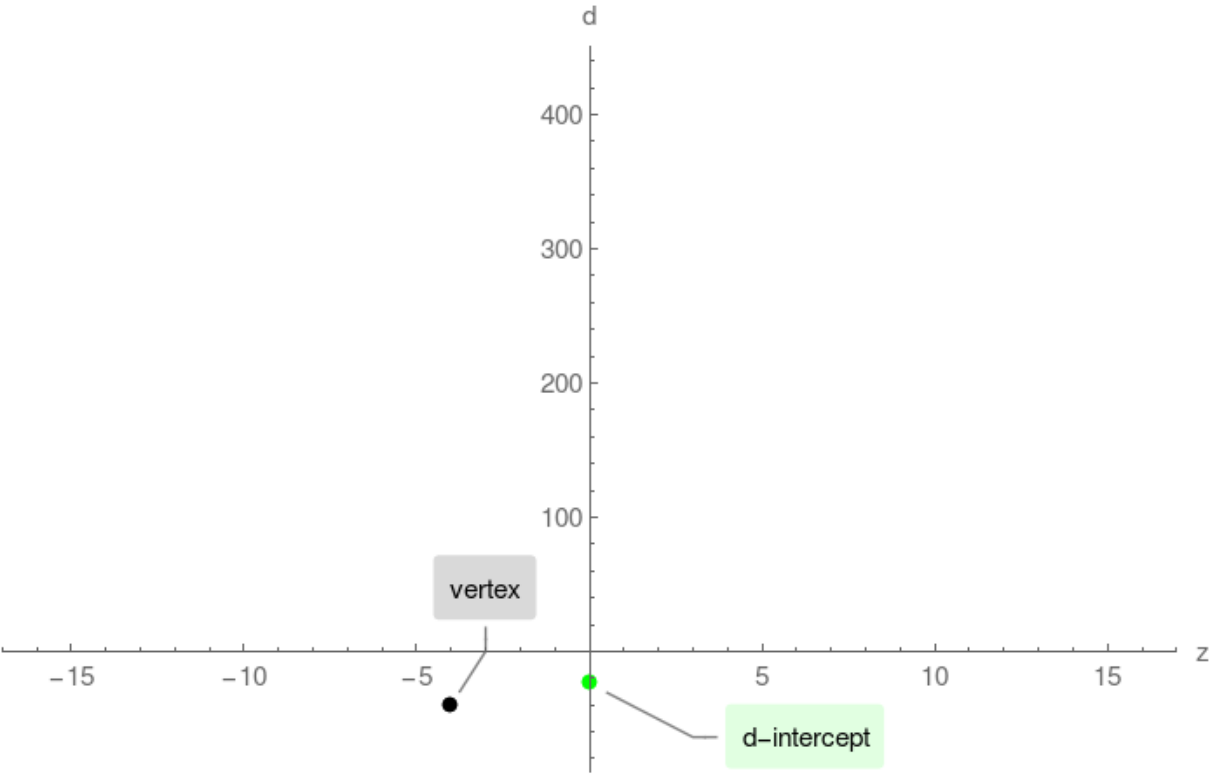
Step 1.

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

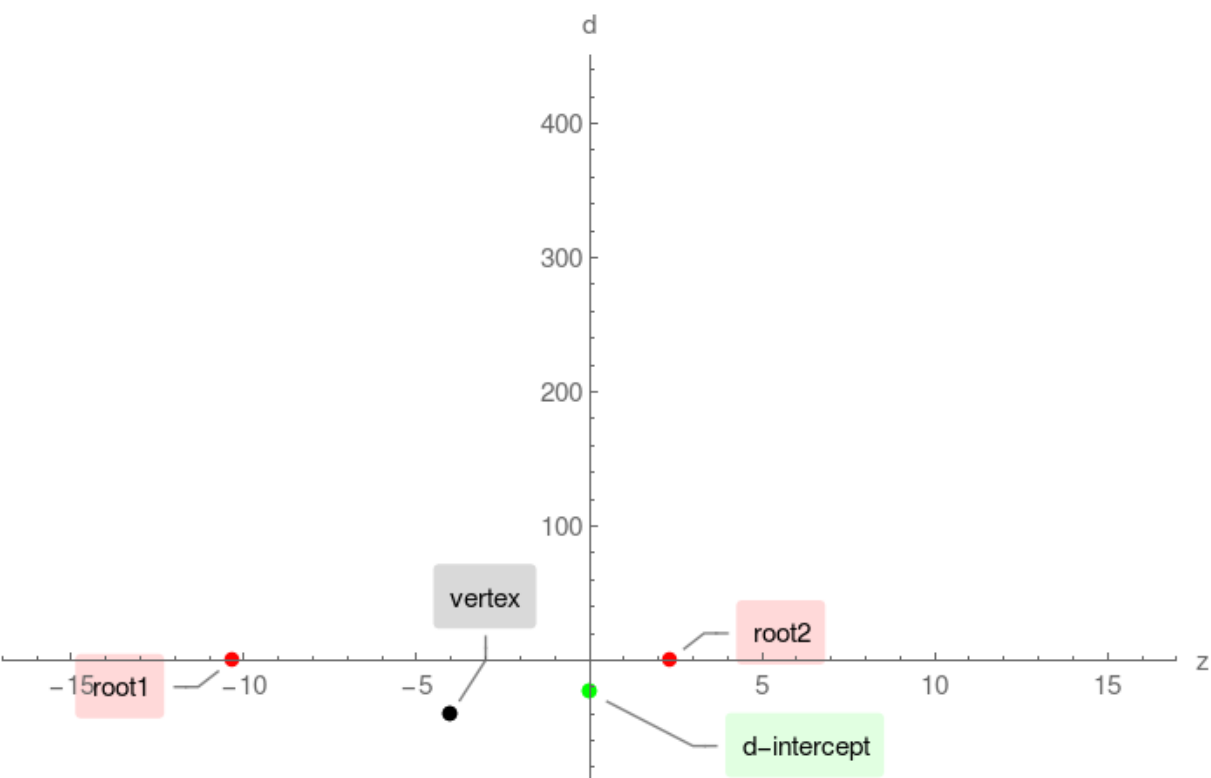## Step 2.

Compute d-intercept and plot single point:
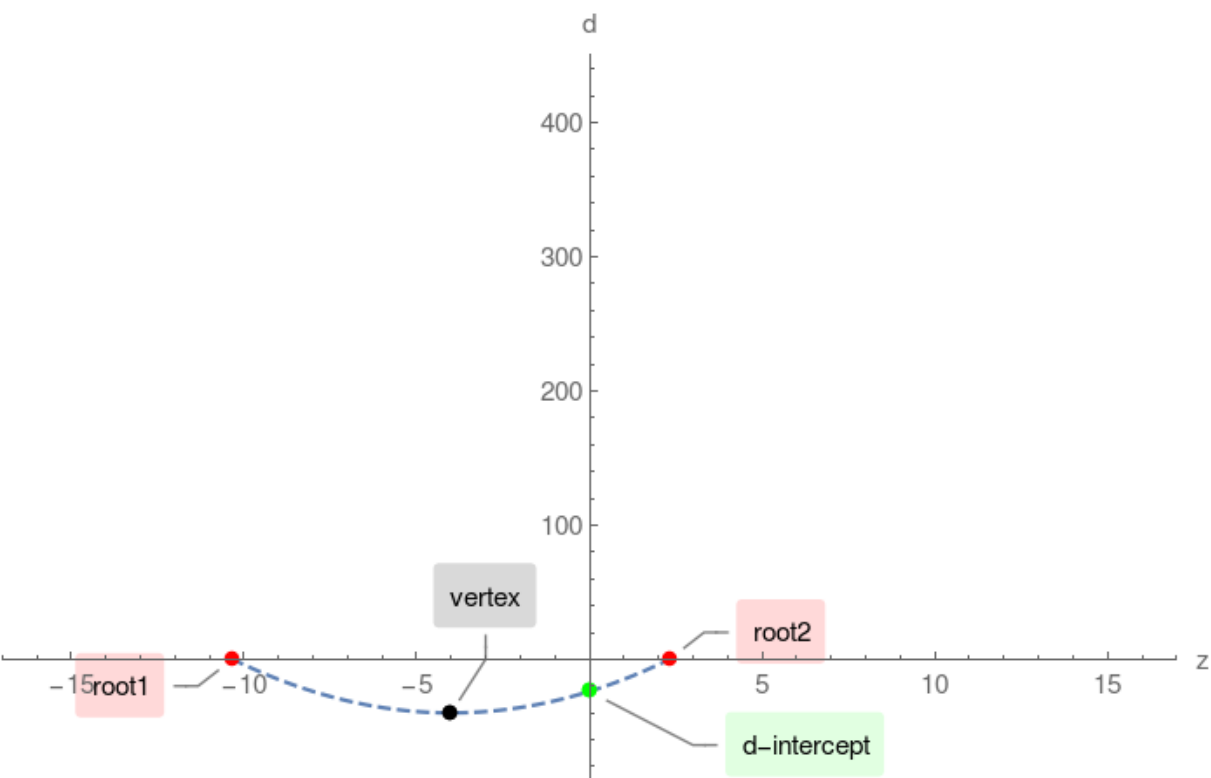d-intercept = $(0, -24)$

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