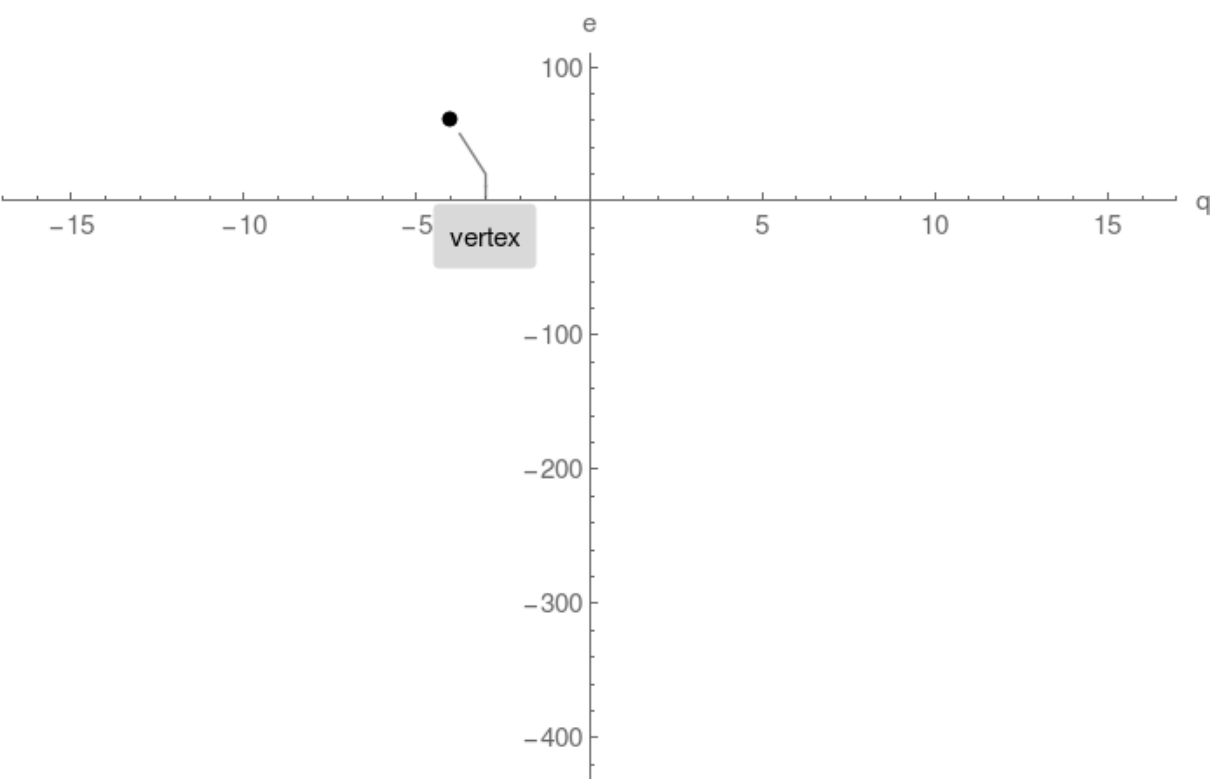# Example 1. 2 horizontal intercepts found

Plot $e(q) = -q^2 - 8q + 44$

Step 1.
Compute vertex and plot single point:
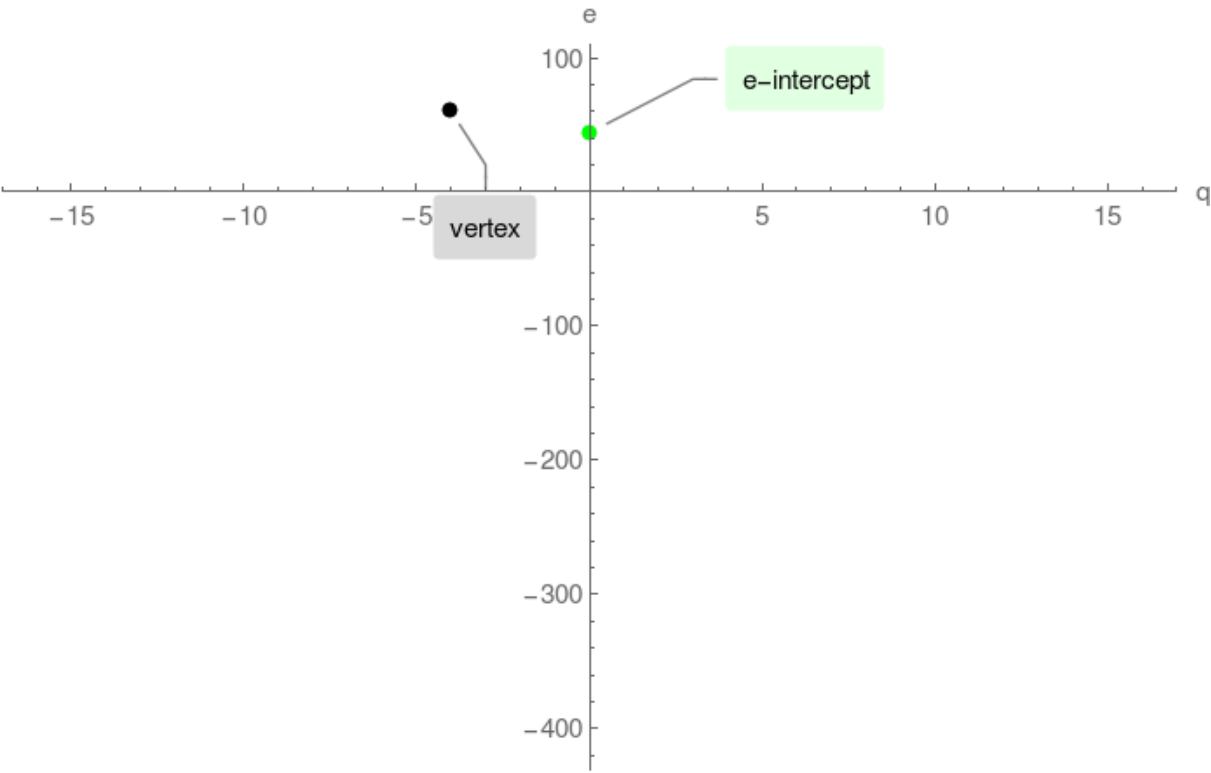vertex$= (-4, 60)$
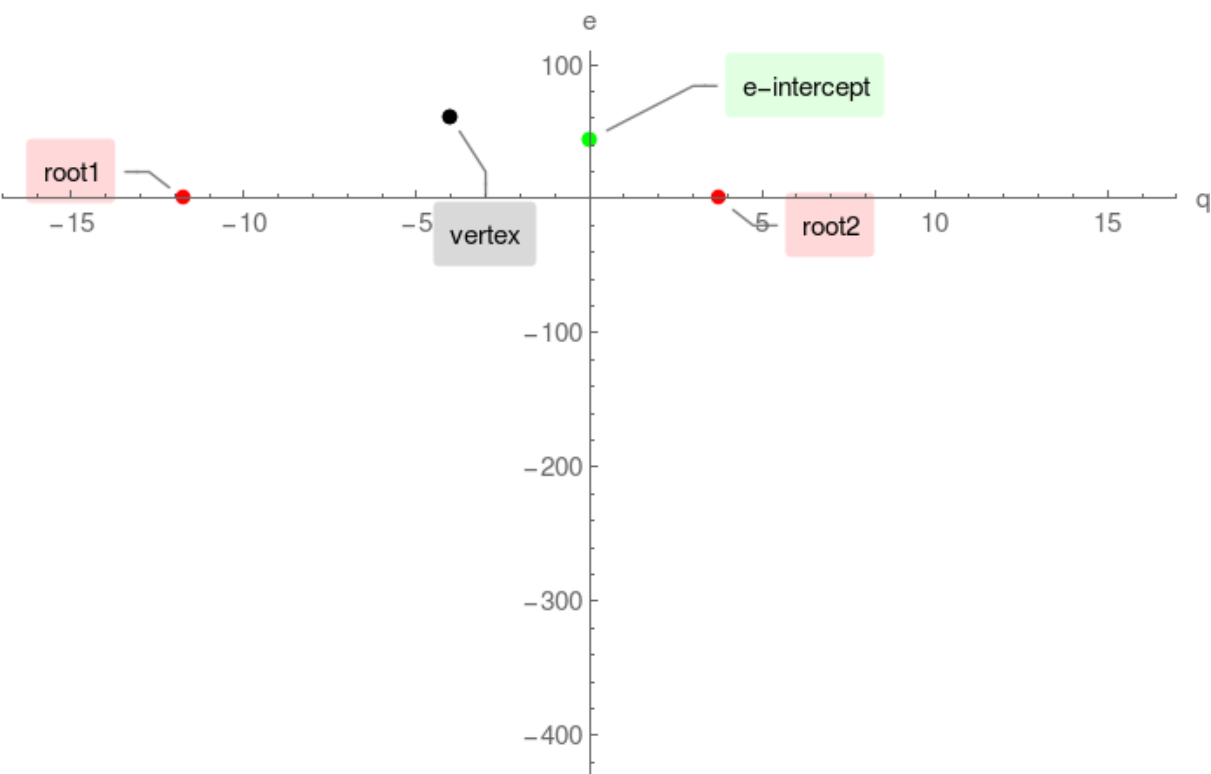

Step 2.
Compute e-intercept and plot single point:
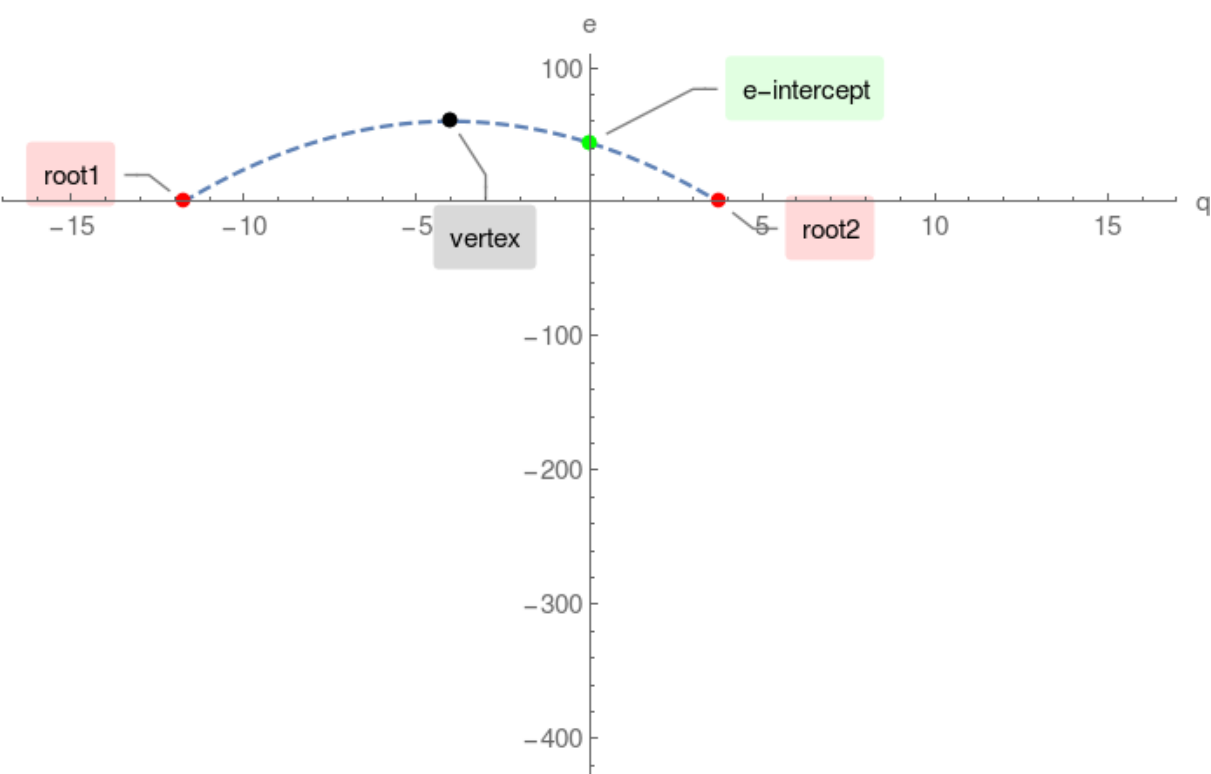e-intercept$= (0, 44)$

Step 3.
Compute q-intercepts by solving $-q^2 - 8q + 44 = 0$:
$(-4 - 2\sqrt{15}, 0)$, $(-4 + 2\sqrt{15}, 0)$

Step 4.
connect the above computed points:

Step 5.
Extend the parabola beyond the range of intercepts