Solution

To find the j-intercept, we set ${\sf q}$ equal to 0, so :

-2 + i = 0 or 3 + i = 0

j = 2 or j = -3

 $q(j) = j^2 + j - 6 = (-2 + j) (3 + j) = 0$

So, the j-intercepts are at the points (2,0) and (-3,0)