Solution

To find the c-intercept, we set b equal to 0, so :

 $b(c) = c^2 - c - 12 = (-4 + c) (3 + c) = 0$

3 + c = 0 or -4 + c = 0

So, the c-intercepts are at the points (-3,0) and (4,0)

c = -3 or c = 4