To find the g-intercept, we set d equal to 0, so :

Solution

2 + q = 0 or -6 + q = 0

q = -2 or q = 6

 $d(a) = a^2 - 4a - 12 = (-6 + a)(2 + a) = 0$ 

So, the g-intercepts are at the points (-2,0) and (6,0)