Solution

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

 $d(a) = a^2 - a - 12 = (-4 + a) (3 + a) = 0$

-4 + q = 0 or 3 + q = 0

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

q = 4 or q = -3