Solution

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

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

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

-4 + d=0 or 3 + d=0

d = 4 or d = -3