3.

Solution

To find the v-intercept, we set e equal to 0, so :

$e(v) = v^2 - 3v - 10 = (-5 + v)(2 + v) = 0$

$2 + v = 0$ or $-5 + v = 0$

$v = -2$ or $v = 5$

So, the v-intercepts are at the points $(-2,0)$ and $(5,0)$