4.

Solution

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

$z(v) = v^2 - 8v + 15 = (-5 + v)(-3 + v) = 0$

$-5 + v = 0$ or $-3 + v = 0$

$v = 5$ or $v = 3$

So, the v-intercepts are at the points $(5,0)$ and $(3,0)$