4.

Solution

To find the t-intercept, we set y equal to 0, so :

$y(t) = t^2 + 5t + 6 = (2 + t)(3 + t) = 0$

$3 + t = 0$ or $2 + t = 0$

$t = -3$ or $t = -2$

So, the t-intercepts are at the points $(-3,0)$ and $(-2,0)$