1.

Solution

To find the r-intercept, we set p equal to 0, so :

$p(r) = r^2 + r - 6 = (-2 + r)(3 + r) = 0$

$3 + r = 0$ or $-2 + r = 0$

$r = -3$ or $r = 2$

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