6.

Solution

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

$$p(r) = r^2 - 8r + 12 = (-6 + r)(-2 + r) = 0$$

$-2 + r = 0$ or $-6 + r = 0$

$r = 2$ or $r = 6$

So, the r−intercepts are at the points $(2,0)$ and $(6,0)$