4. $n^3 + n^2 - n - 1$ has a factor $(n-(-1))$ compute all other factors:

$(n-3)\ n\ (n+1)$

$n\ (n+1)\ (n+4)$

$(n-1)\ (n+1)^2$

$(n-2)\ (n+1)\ (n+2)$

Solution

Apply Long Division.

$(n-1)\ (n+1)^2$