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

n (n + 1) (n + 3)

n (n + 1)$^2$

(n − 1) (n + 1) (n + 3)

(n − 3) (n + 1) (n + 3)

**Solution**
Apply Long Division.
(n − 1) (n + 1) (n + 3)