1. $n^3 + n^2 - 10n + 8$ has a factor $(n - (-4))$ compute all other factors:

$(n - 3)(n - 2)(n - 1)$

$(n - 2)(n + 1)(n + 3)$

$(n - 2)(n - 1)(n + 4)$

$(n - 2)(n - 1)(n + 3)$

Solution
Apply Long Division.
$(n - 2)(n - 1)(n + 4)$