2. $p^3 - 4p^2 + p + 6$ has a factor $(p-(-1))$ compute all other factors:

$(p-3)\ (p-2)\ (p+4)$

$(p-3)\ (p+2)\ (p+3)$

$(p-3)\ (p-2)\ (p+1)$

$(p-3)\ (p-1)\ (p+4)$

Solution
Apply Long Division.
$(p-3)\ (p-2)\ (p+1)$