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

$(m - 2) (m - 1) m$

$(m - 2)^2 (m + 2)$

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

$(m - 4)^2 (m - 2)$

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