5. $y^3 - 2y^2 - 7y - 4$ has a factor $(y-(-1))$ compute all other factors:

$(y + 1)\ (y + 3)\ (y + 4)$

$y^2\ (y + 1)$

$(y - 4)\ (y + 1)^2$

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

Solution
Apply Long Division.
$(y - 4)\ (y + 1)^2$