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

$(x - 3)(x + 1)^2$

$(x - 4)(x - 3)(x + 1)$

$(x - 3)(x - 1)(x + 1)$

$(x - 1)(x + 1)^2$

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