3. $t^3 + 3t^2 - 9t - 27$ has a factor $(t-(-3))$ compute all other factors:

$(t+1)(t+2)(t+3)$

$t(t+1)(t+3)$

$(t-3)(t+3)^2$

$(t-4)(t+3)^2$

Solution
Apply Long Division.
$(t-3)(t+3)^2$