1. $e^3 - 2e^2 - 15e + 36$ has a factor $(e - (-4))$ compute all other factors:

$(e - 4)(e - 3)(e - 2)$

$(e - 3)(e - 2)(e + 3)$

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

$(e - 3)(e + 1)(e + 3)$

Solution
Apply Long Division.
$(e - 3)^2(e + 4)$