1. $t^3 - 5t^2 - 2t + 24$ has a factor $(t - (-2))$ compute all other factors:

$(t - 4)(t - 1)(t + 1)$

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

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

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

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