1. $v^3 - 2v^2$ has a factor $(v-0)$ compute all other factors:

$(v-2)^2 (v+2)$

$(v-4)(v-3)(v-2)$

$(v-2)v^2$

$(v-3)(v-2)(v-1)$

Solution
Apply Long Division.
$(v-2)v^2$