2.
$$b^3 + 6b^2 + 5b - 12$$
 has a factor $(b - (-4))$ compute all other factors: $(b-2) (b-1)^2$ $(b-2) (b-1) (b+4)$ $(b-1) (b+3) (b+4)$ $(b-3) (b-1) (b+3)$ Solution Apply Long Division.

(b-1)(b+3)(b+4)