2. $u^3 - 2u^2 - 16u + 32$ has a factor $(u - (-4))$ compute all other factors:

$(u - 4)(u - 3)(u - 1)$

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

$(u - 4)(u - 2)(u + 4)$

$(u - 4)(u - 3)(u + 3)$

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