4. $s^3 + s^2 - 8s - 12$ has a factor $(s - (-2))$ compute all other factors:

$(s - 3)(s - 1)s$

$(s - 3)(s - 1)(s + 1)$

$(s - 3)(s + 2)^2$

$(s - 3)^2(s - 2)$

Solution
Apply Long Division.

$(s - 3)(s + 2)^2$