3. $k^3 + 5k^2 + 4k$ has a factor $(k - (-4))$ compute all other factors:

$(k + 1)(k + 3)^2$

$(k + 1)^3$

$k(k + 1)(k + 4)$

$(k - 1)(k + 1)(k + 3)$

Solution
Apply Long Division.
$k(k + 1)(k + 4)$