5. $b^3 + 6b^2 + 8b$ has a factor $(b - (-4))$ compute all other factors:

$(b - 2)^2 (b + 4)$

$(b + 2) (b + 4)^2$

$b (b + 2) (b + 4)$

$(b - 4) (b - 1) (b + 4)$

Solution
Apply Long Division.
$b (b + 2) (b + 4)$