5.
$$t^3 - 3t^2 - t + 3$$
 has a factor $(t - (-1))$ compute all other factors:
$$(t - 3)^2 (t + 3)$$

$$(t - 3) t (t + 3)$$

$$(t - 3) (t - 1) (t + 1)$$

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

Solution Applv Lo

Apply Long Division. (t-3) (t-1) (t+1)