

1. $e^3 + 10e^2 + 33e + 36$ has a factor $(e - (-4))$ compute all other factors:

$$(e + 3)^3$$

$$(e - 3)(e + 3)(e + 4)$$

$$(e + 3)^2(e + 4)$$

$$(e - 4)(e + 3)(e + 4)$$

Solution

Apply Long Division.

$$(e + 3)^2(e + 4)$$