

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

$$(e - 3) (e - 1) (e + 3)$$

$$(e - 1) e (e + 4)$$

$$(e - 1) (e + 2) (e + 3)$$

$$(e - 1)^2 (e + 3)$$

**Solution**

Apply Long Division.

$$(e - 1) (e + 2) (e + 3)$$