

1. $p^3 - 13p - 12$ has a factor $(p - (-3))$ compute all other factors:

$$(p - 1) (p + 3) (p + 4)$$

$$(p - 4) p (p + 3)$$

$$(p - 4) (p + 1) (p + 3)$$

$$(p - 1) (p + 1) (p + 3)$$

Solution

Apply Long Division.

$$(p - 4) (p + 1) (p + 3)$$