

1. $w^3 + 2w^2 - 11w - 12$ has a factor $(w - (-4))$ compute all other factors:

$$(w - 3) (w - 1) w$$

$$(w - 4) (w - 3) w$$

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

$$(w - 3) (w + 2) (w + 3)$$

Solution

Apply Long Division.

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