

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

$$(u + 1) (u + 2) (u + 3)$$

$$(u - 3) (u + 2)^2$$

$$(u - 1) (u + 1) (u + 2)$$

$$(u + 2)^2 (u + 4)$$

**Solution**

Apply Long Division.

$$(u - 1) (u + 1) (u + 2)$$