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

$$(u-4) (u+2) (u+3)$$

$$(u-4) (u-3) (u-2)$$
Solution
Apply Long Division.
$$(u-4) (u+2) (u+3)$$

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

1. $u^3 + u^2 - 14u - 24$ has a factor (u - (-3)) compute all other factors: