

3. $u^3 - 4u$ has a factor $(u - (-2))$ compute all other factors:

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

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

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

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

Solution

Apply Long Division.

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