

Example 1:  $3x^3y^4 + 12xy^2 - 21x^2y^3$

⇒ 3 terms  
means  
Find GCF

$$3(x^3y^4 + 4xy^2 - 7x^2y^3)$$

$$x(x^2y^4 + 4y^2 - 7xy^3)$$

$$3xy^2(x^2y^2 + 4 - 7xy)$$

Example 2:  $144y^8 - 25$

$\Rightarrow$  2 terms  
DOS

$$\sqrt{144y^8} = 12y^4$$

$$\sqrt{25} = 5$$

$$(12y^4 + 5)(12y^4 - 5)$$

Example 3:  $(5w^3 - 10w^2 - 15w + 30)$   $\Rightarrow$  4 terms Grouping

$$(5w^3 - 10w^2)$$

$$(-15w + 30)$$

$$5w^2(w - 2)$$

$$-15(w - 2)$$

$$(w - 2)(5w^2 - 15)$$