

3.3 Common Factors of Polynomials

Example: Expand:

a) $3(2x+5)$

$$= 6x + 15$$

b) $2x(3x-2)$

$$= 6x^2 - 4x$$

Example: Factor:

a) $6x+9$ $GCF=3$

$$= 3(2x+3)$$

b) $4x^2+8x$ $GCF=4x$

$$= 4x(x+2)$$

c) $6x^2-8x+4$ $GCF=2$

$$= 2(3x^2-4x+2)$$

d) $14xy-7x^2+21xy^2$ $GCF=7x$

$$= 7x(2y-7x+3y^2)$$

e) $-12a^3b^2+9a^2b^3-15ab^4$ $GCF=-3ab^2$

$$= -3ab^2(4a^2-3ab+5b^4)$$