MATH 0482
Chapter 4.2 Factoring Polynomials

FACTOR : WRITE A NUMBER OR EXPRESSION AS A PRODUCT

12 $8x^7$

GREATEST COMMON FACTOR : LARGEST FACTOR IN COMMON

FIND THE GCF OF $25x^7y^2z$ AND $15x^3y^4z^2$.

FIND THE GCF OF $12a^5b^2(a+b)^5$, $60a^4b^3c(a+b)^3$, AND $24a^2b^7c^3(a+b)^2$.

MULTIPLYING: $a(b+c) = ab+ac$

FACTORING: $ab+ac = a(b+c)$

FACTOR $12x^2y^3+6xy^2$.

FACTOR OUT THE GCF.

$18x^7-30x^5+6x^3$

$27x^5y^5z+54x^5yz-63x^3y^4$

FACTORING BY GROUPING

$7x(3x-2)-(3x-2)$

$3x^3-12x^2+2x-8$

$24a^4 - 18a^3 - 20a + 15$

$ab - 2a^2b + a^3 - 2b^2$

FACTORING SPECIAL BINOMIALS

"DIFFERENCE OF 2 SQUARES"

$$a^2 - b^2 = (a+b)(a-b)$$

FACTOR:

$x^2 - 9y^2$

$x^2 - (2x-1)^2$

"SUM OF 2 CUBES"

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

"DIFFERENCE OF 2 CUBES"

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

FACTOR.

x^3-8y^3

$81x^4y+3xy^4$

x^4-81y^4

$64x^6-y^6$