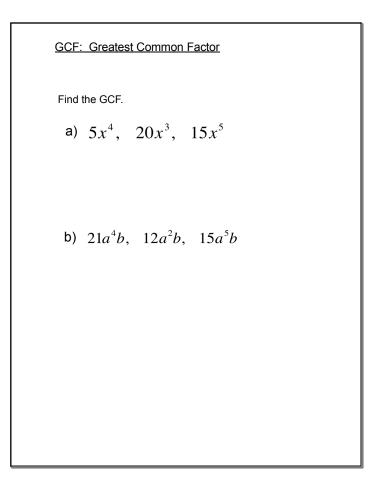
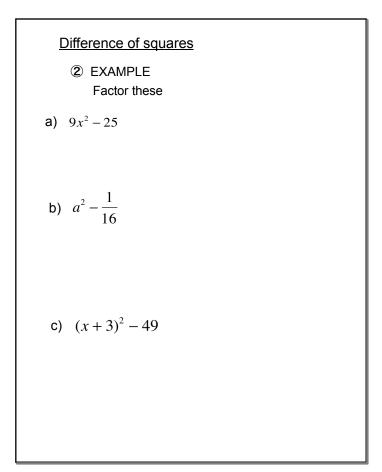
## 5.4 Factoring by Grouping

MATH 1010 ~ Intermediate Algebra Chapter 5: POLYNOMIALS AND FACTORING Section 5.4: Factoring by Grouping and Special Forms	
Objectives:	
a <sup>3</sup> - b <sup>3</sup> =? x <sup>2</sup> +2xy+y <sup>2</sup> = ? a <sup>2</sup> + b <sup>2</sup> = ?	



## 5.4 Factoring by Grouping

(1) EXAMPLE: Factor out the greatest common factor. a)  $24x^3 - 32x^2$ b)  $4x^2(3x-1) - 6(3x-1)$ c)  $x^3 - 5x^2 + x - 5$ d) (3x+7)(2x-1) + (x-6)(2x-1)



## 5.4 Factoring by Grouping

Sum and Difference of Cubes		
$u^3 + v^3$		
$u^3 - v^3$		
③ Example Factor these.		
<b>a</b> ) $x^3 - 64$	<b>b)</b> $8w^3 + 27$	
c) $3x^4 + 81x$	d) $2a^3 - 32a$	

