

(C1-1.5a) Name:

## Homework Questions 5 – Factorising a Quadratic

1. Factorize the following quadratic equations into double brackets

a)  $x^2 + 10x + 24$

$$(x + 4)(x + 6)$$

b)  $x^2 + x - 30$

$$(x + 6)(x - 5)$$

c)  $x^2 - 11x + 28$

$$(x - 7)(x - 4)$$

2. Factorize the following quadratic equations using the difference of two squares

a)  $x^2 - 49$

$$(x + 7)(x - 7)$$

b)  $169 - y^2$

$$(13 - y)(13 + y)$$

c)  $4x^2 - 9y^2$

$$(2x - 3y)(2x + 3y)$$

d)  $25x^2y^2 - 36x^2$

$$(5xy - 6x)(5xy + 6x)$$

3. Factorize the following quadratic equations

a)  $4x^2 + 12x + 9$

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

b)  $3x^2 - 10x - 8$

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

c)  $5x^2 + 28x + 15$

$$(5x + 3)(x + 5)$$

