

HW 2-3  
Secondary III

Name: Selected Answers  
Period: \_\_\_\_\_

Objective: I can factor quadratic expressions.

Factor each expression completely:

1.  $6xy^2 - 18y^3$

②  $3xy - x$     GCF =  $x$

$x(3y - 1)$

③  $x(x-2) - 5(x-2)$

$(x-2)(x-5)$

4.  $x^2 + 4x + 3$

5.  $x^2 - 7x + 10$

⑥  $m^2 + 6m - 7$

$-1 \cdot 7 = -7$

$-1 + 7 = 6$

$(x-1)(x+7)$

⑦  $6x^2 + 19x + 15$

~~GCF: 3~~

$6 \cdot 15 = 90$

~~$3(2x^2 + \dots)$~~

$10 \cdot 9 = 90$

$10 + 9 = 19$

8.  $3b^2 - 3b - 18$

$(6x^2 + 10x) + (9x + 15)$

$2x(3x+5) + 3(3x+5)$

$(3x+5)(2x+3)$

$$9. x^2 + 2x - 35$$

$$10. a^2 + 13a + 42$$

67

$$(a+6)(a+7)$$

$$11. 4x^2 - 2x - 12$$

$$2(2x^2 - x - 6) \quad 2(x^2 - 6)$$

+12

$$2(2x^2 - x - 6)$$

$$(2x^2 - 4x) + (3x - 6)$$

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

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

$$12. x^2 - 11x + 28$$

$$13. 2x^2 + 13x + 15$$

$$14. w^2 + 13w + 40$$

$$(w+5)(w+8)$$

$$15. 3x^2 + 7x + 4$$

x 12

+ 7

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

$$3x(x+1) + 4(x+1)$$

$$(x+1)(3x+4)$$