Math 92-GN Quiz #2 Satake

Name: KEY

Read all directions and problems carefully! Show all appropriate work for credit.

1. Factor the following trinomials whose leading coefficient is 1.

$x^2 - 9xy + 20y^2$

$+20$ -9

$-4(-5)$ $-4+(-5)$

$(x-5y)(x-4y)$ +2

$n^2 - 21n - 72$

-72 -21

$1(-72)$

$2(-36)$

$3(-24)$

$(n-24)(n+3)$ +2

$4a^3 - 16a^2 - 48a$

$4a(a^2-4a-12)$

-12 -4

$-6(2)$

$4a(a-6)(a+2)$ +3

2. Factor the following trinomials completely using the $a \cdot c$ Grouping Method.

$2x^2 + 7x + 3$

$2 \cdot 3 = 6$ 7

$6(1)$

$2x^2+6x+1x+3$

$2x(x+3)+1(x+3)$

$(x+3)(2x+1)$ +2

$9b^2 + 33b - 12$

-12 $+11$

$12(-1)$

$3(3b^2+11b-4)$

$3(3b^2+12b-1b-4)$

$3[3b(b+4)-1(b+4)]$

$3(b+4)(3b-1)$ +3

$8a^2 - 10ab + 3b^2$

$+24$ -10

$-6(-4)$

$8a^2-4ab-6ab+3b^2$

$4a(2a-b)-3b(2a-b)$

$(2a-b)(4a-3b)$ +3

15