Name: _____ Date: _____

BLM 5–7

Section 5.3 Extra Practice

1. Identify two integers with the given product and sum.

a) product = 12, sum = 13

b) product = 34, sum = 19

c) product = –33, sum = 8

d) product = –20, sum = –1

e) product = 54, sum = –15

2. Factor, if possible.

a) $x^2 + 8x + 15$

b) $x^2 + 5x + 6$

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

d) $m^2 + 7m + 10$

e) $y^2 + 24y + 144$

3. Factor, if possible.

a) $x^2 - 13x + 42$

b) $x^2 - 18x + 81$

c) $x^2 - x - 20$

d) $x^2 + 5x - 6$

e) $x^2 - x + 1$

4. Factor each trinomial.

a) $x^2 + 9xy + 14y^2$

b) $x^2 - 8xy + 16y^2$

c) $x^2 - 8xy + 15y^2$

d) $m^2 + 7mn - 8n^2$

e) $a^2 - 6ab - 7b^2$

5. Factor each trinomial. First check for a GCF.

a) $4x^2 + 24xy + 36y^2$

b) $2x^2 - 26x + 72$

c) $5x^2 - 5xy - 30y^2$

d) $-3x^2 - 48x - 165$

e) $3x^2 - 30x + 63$

6. Factor.

a) $2x^2 + 13x + 15$

b) $3x^2 + 11xy - 4y^2$

c) $7a^2 - 47a + 30$

d) $10y^2 + 9y + 2$

e) $12x^2 - 8x - 15$

7. Factor. First check for a GCF.

a) $12x^2 - 26x - 10$

b) $18x^2 - 3x - 36$

c) $75y^2 - 120y + 48$

d) $12x - 15xy - 18xy^2$

e) $40x^2y - 36xy^2 - 36y^3$

8. Determine two values of b so that each trinomial can be factored.

a) $x^2 + bx + 10$

b) $x^2 + bx + 8$

c) $x^2 - bx + 12$

d) $m^2 + 6m + b$

e) $y^2 + 5y + b$

9. Determine two values of k so that each trinomial can be factored.

a) $2x^2 + kx + 5$

b) $3x^2 + kx + 2$

c) $2x^2 + kx - 15$

d) $20m^2 + 23m + k$

e) $6y^2 + 17y + k$