Practice 13.3

Name_____

Factor.

1) $3y^2(y - 3) + 2y(y - 3)$

Factor by grouping.

2) $4y^3 - 12y^2 + 5y - 15$

3) $ax - bx + ay - by$

Factor the trinomial completely.

4) $y^2 - 11y + 30$

5) $2x^3 - 6x^2 - 36x$

6) $4x^4 + 12x^3 - 160x^2$

Factor.

7) $9x^2 + 20x + 4$

Factor the trinomial completely.

8) $8x^2 + 36x - 20$

9) $-9x^2 + 14x + 8$

10) $-8x^2 + 6x + 9$

Factor the trinomial completely.

11) $6x^3 - 5x^2 - 6x$

12) $14 - 5x - 6x^2$

Solve.

13) A rectangle has an area of $6x^2 + 19x + 14$.
Find possible dimensions for this rectangle.

14) Write a polynomial in factored form that
represents the total area of the figure.

$2x^2$	$5x$
$6x$	12

1) $y(3y + 2)(y - 3)$
2) $(4y^2 + 5)(y - 3)$
3) $(x + y)(a - b)$
4) $(y - 6)(y - 5)$
5) $2x(x + 3)(x - 6)$
6) $4x^2(x - 5)(x + 8)$
7) $(9x + 2)(x + 2)$
8) $4(2x - 1)(x + 5)$
9) $-(9x + 4)(x - 2)$
10) $-(4x + 3)(2x - 3)$
11) $x(3x + 2)(2x - 3)$
12) $-(6x - 7)(x + 2)$
13) $6x + 7$ by $x + 2$
14) $(2x + 3)(x + 4)$