Practice 13.4

Name_____

(13.3) Factor Completely

1) $5x^5 - 85x^4 + 360x^3$

Factor.

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

Factor by grouping.

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

4) $ax - bx + ay - by$

Factor the trinomial completely.

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

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

7) $-8x^2 + 6x + 9$

Factor the trinomial completely.

8) $6x^3 - 5x^2 - 6x$

Solve.

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

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

(13.4) Factor.

10) $x^2 - 144$

11) $x^2 + 36$

12) $4 - 49x^2$

13) $y^2 - 12y + 144$

14) $64x^2 - 112x + 49$

15) $36a^2 - b^2$

Solve.

16) A rectangle has an area of $x^2 + 11x + 28$. Find one possibility for its width and its length.

Provide an appropriate response.

17) $x^2 + $ ____ $ + 64$ is a perfect square trinomial.

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1) $5x^3(x - 9)(x - 8)$
2) $y(3y + 2)(y - 3)$
3) $(4y^2 + 5)(y - 3)$
4) $(x + y)(a - b)$
5) $(y - 6)(y - 5)$
6) $2x(x + 3)(x - 6)$
7) $-(4x + 3)(2x - 3)$
8) $x(3x + 2)(2x - 3)$
9) $(2x + 3)(x + 4)$
10) $(x - 12)(x + 12)$
11) Not possible
12) $(2 - 7x)(2 + 7x)$
13) Not possible
14) $(8x - 7)^2$
15) $(6a - b)(6a + b)$
16) $x + 7, \ x + 4$
17) $16x$