

# HOMWORK: FACTORING

NAME: \_\_\_\_\_ DAY 2 DUE: \_\_\_\_\_

Factor completely. If the polynomial cannot be factored, write "PRIME."

1. $8x^2 - 18$	2. $x^2 + 100$
3. $6x^2 - 11x - 2$	4. $12x^2 - 22x - 20$
5. $1 - 4x^2$	6. $x^4 - 81$
7. $y^4 + 11y^3 + 30y^2$	8. $x^6 - 2x^3 + 1$
9. $1 - 8x^2 - 9x^4$	

Simplify.

10.  $(4x - 3)^2 + x \cdot 2(4x - 3) \cdot 4$

11.  $\frac{(3x+1) \cdot 2x - x^2 \cdot 3}{(3x+1)^2}$

Factor completely.

12.  $2(3x + 4)^2 + (2x + 3) \cdot 2(3x + 4) \cdot 3$

13.  $2x(2x + 5) + x^2 \cdot 2$

14.  $2(x + 3)(x - 2)^3 + (x + 3)^2 \cdot 3(x - 2)^2$

15.  $(4x - 3)^2 + x \cdot 2(4x - 3) \cdot 4$