

Name: _____

Factoring Review Homework Assignment

Factor the COMMON FACTOR from the following expressions.

1. $2ab - 6ac + 12ad =$

2. $2x + 6x^2 =$

3. $2b^2 - 8b^3 =$

4. $3ab + 3ab^2 - 3a^2b =$

5. $3a(x + 2) - 9a^3(x + 2) =$

Factor the following expressions. Each is a difference of two squares.

6. $x^2 - 100 =$

7. $9 - b^2 =$

8. $x^2 - y^2 =$

9. $4x^2 - 9y^2 =$

10. $a^4 - y^6 =$

Factor the following simple trinomials.

11. $x^2 + 8x + 7 =$

12. $x^2 - 7x + 10 =$

$$13. x^2 + 7x - 30 =$$

$$14. x^2 - x - 20 =$$

$$15. x^2 - 15x - 250 =$$

Factor the following complex trinomials.

$$16. 2x^2 + 7x + 3 =$$

$$17. 16x^2 + 24x + 9 =$$

$$18. 2x^2 - 11x + 15 =$$

$$19. 3p^2 - 13p + 10 =$$

$$20. 2x^2 + xy - 3y^2 =$$

Factor each sum or difference of cubes

$$21. 8 - z^3 =$$

$$22. 27x^3 + q^3 =$$

$$23. a^3 - 64 =$$

Factor each of the following expressions. More than one “type” of factoring may be necessary.

$$24. 11x^2 - 44c^2 =$$

$$25. 4x^2 - 20x - 24 =$$

$$26. 4ax^2 - 20ax - 24a =$$

$$27. 20ax^2 + 120ax + 180a =$$

$$28. xy^4 - 8xy =$$