

Name _____

Analytic Geometry

Chapter 14 Study Guide

1. Factor out the Common Monomial

A) $6x^3y^2 + 18x^2y^3 - 24x^7$

B) $-8x^7yz + 12x^4y^3z - 12x^3$

C) $-20y^2z^6x^3 - 40y^4z^6x - 36y^2z^6$

D) $9m^3p^2q^2 - 24m^4p^2q + 18mp^3q$

D. What do we say if an expression cannot be factored?

E. What is the 1st step we do EVERY SINGLE TIME WE FACTOR?!?!?!?

Factor completely

1. $36x^8 - y^2z^{10}$

3. $x - 9x^3$

4. $16v^2 + 8v + 1$

5. $16a^2 - 48a + 36$

6. $5x^2 - 9x - 2$

7. $x^6 - x^3 - 20$

8. $3m^2 - m - 30$

9. $5x^3 - 40x^2 + 60x$

10. $8a^2 - 4a$

11. $x^{12} + 2x^6 - 48$

12. $12x^4 - 19x^2 - 18$

13. $7x^2 + x - 8$

14. $3x^3 + 18x^2 - 120x$

15. $-6x^4 + 5x^3 + 4x^2$

16. $-x^3 - 10x^2 - 16x$

17. $4x^2 + 10x + 4$

18. $-x^2 + 7x - 10$

19. $x^8 - 2x^4 - 63$

20. $b^2 - 3b + 28$

21. $72x^8 - 8$

22. $x^5 - 4x^4 - 9x + 36$

23. $p^2 - 4p + 24$