

Name _____

Honors Algebra II

Date _____

Factoring Worksheet

Directions: Factor each polynomial completely if possible.

1. $-12d^8e - 24d^4$

13. $5 + 7m + 2m^2$

2. $162pr^5s^2 + 36p^3r^6s - 90p^2r^3s$

14. $5c^2 + 12c + 7$

3. $38m^2n^3s + 114mn^4 - 76m^2sn^3 - 190mn^2s^3$

15. $22p^2 - 35p + 3$

4. $17x^3y^2 + 34xy^3 - 102x^2y^2 + 34xy$

16. $11c^2 - 15c - 6$

5. $r^2 + 25r + 24$

17. $56s^2 - 33s - 108$

6. $300 + 37n + n^2$

18. $7r^2 - 16rs - 15s^2$

7. $55 + 16g^5 + g^{10}$

19. $6 - 7t^2 + 2t^4$

8. $a^2 - 20a + 75$

20. $3 - 32r^4 + 20r^8$

9. $114 - 25k + k^2$

21. $5x^2 + 65x + 210$

10. $105 - 22b + b^2$

22. $98m - 28m^2 + 2m^3$

11. $40 - 13bx^2 + b^2x^4$

23. $175c - cx^2y^2$

12. $10y^2 + 11y + 3$

24. $5zw^4 - 405$

25. $588a - 12ar^2$

33. $c^2 - 18cd + 81d^2 - 225x^2$

26. $2304d - 9c^2d$

34. $g^6 - 127g^3 + 250$

27. $(a - 2)^2 - 49k^2$

35. $216z^3 - 125a^3$

28. $9 + 6(1 - x) + (1 - x)^2$

36. $x^3 - x(y - z)^2$

29. $c^2(2 - y) + c(2 - y) - (2 - y)$

37. $k^2 + 14k + 49 - g^2$

30. $5g^3 - 10g^2a - g + 2a$

38. $4ab + (a - b)^2$

31. $2k^2ma - 4mk^3 + 8ak^2 - 16k^3$

39. $a^{4b} + 5a^{3b}$

32. $(c + d)^3 - 4cd(c + d)$

40. $v^{2c+1} - 22v^{c+1} + 121v$