

## Factoring Review

Factor the following questions. Use the following steps

1. Check for a common factor
2. Check for an "easy" trinomial – no coefficient in front of the squared variable
3. Check for a "hard" trinomial – use the "OI" in FOIL method
4. If it is a binomial, use the difference of squares method

- |                       |                         |                       |
|-----------------------|-------------------------|-----------------------|
| 1. $3a^2 + 6a$        | 16. $16 - 9x^2$         | 31. $x^8 - 1$         |
| 2. $2x - 8xy$         | 17. $10x^2 - 28x + 16$  | 32. $2y^2 - 2y - 24$  |
| 3. $36a^3 - 4a^2$     | 18. $m^2 - 16$          | 33. $2x^2 - 8$        |
| 4. $25a^4 - 9y^2$     | 19. $5y^2 - 14y + 8$    | 34. $4y^2 + 8y - 60$  |
| 5. $x^2 + 7x + 12$    | 20. $m^2 - 5m - 36$     | 35. $m^4 - 16$        |
| 6. $3a^2 - 3b^2$      | 21. $6a^2 + 5a + 1$     | 36. $2x^2 - 16x + 32$ |
| 7. $y^2 - 11y + 28$   | 22. $x^4 - y^4$         | 37. $x^3 - xy^2$      |
| 8. $16x^2 - 8x + 1$   | 23. $p^2 - 2pq - 63q^2$ | 38. $x^2 - 5x + 4$    |
| 9. $a^2 - a - 56^2$   | 24. $m^2 - 3m - 4$      | 39. $x^2 - 2x - 8$    |
| 10. $4x^2 - 11x + 6$  | 25. $x^2 - xy$          | 40. $y^2 + 11y + 30$  |
| 11. $9k^2 - 1$        | 26. $x^2 + 3xy - x$     | 41. $m^2 - 6m - 16$   |
| 12. $32y^2 + 18y + 1$ | 27. $a^2 - 144$         | 42. $8x^2 + 14x - 15$ |
| 13. $2y^2 - 8y^3$     | 28. $3a^2 - 36a + 36$   | 43. $3x^2 + x - 30$   |
| 14. $x^2 - 6x + 8$    | 29. $x^2 + 18x + 32$    | 44. $4m^2 - 9$        |
| 15. $56x^2 + 9x - 2$  | 30. $m^2 - 9m - 112$    | 45. $6x^2 - 7x + 1$   |

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