Pre-Calculus 11: Factoring Quadratics Quiz

Full credit will only be awarded for all work shown in a neat and organized manner.

Factor completely.

1. $p^2 - 12p + 27$

2. $-72 + m + m^2$

3. $64 - 9x^2$

4. $2y^2 + 5y - 25$

5. $16b^4 - 1$

6. $5y^{6n} + 15y^{3n} - 90$

7. $(x + 3y)^2 z - 2(x + 3y)z - 35z$

8. $15(2x - 1)a^2 - 19(2x - 1)a + 6(2x - 1)$

9. $24h^{10} - 6h^5k^3 - 9k^6$

10. $-8b^4x^4 + 14b^4x^2 + 9b^4$

Find an integer, k, so that the trinomial is a perfect square, then factor it using that value of k

11. $t^2 + kt + 49$

12. $4y^2 - 24xy + kx^2$