

NAME: _____

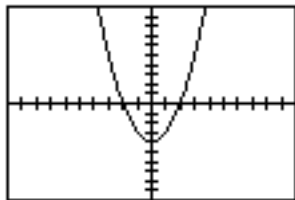
P.I. A.A.19: Identify and factor the difference of two perfect squares

1. Explain why the binomial $x^2 - 9$ is a difference of two squares.
2. Write a quadratic expression that is the difference of two squares.
3. The expression $x - y$ is the difference of two squares. What must be true about x and y ?
4. Use a graphing calculator to graph $y = x^2 - 4$. Explain how you can use the x -intercepts to factor $x^2 - 4$.

[1] Answers may vary. Sample: It is the difference of two terms that are both perfect squares.

[2] Answers may vary. Sample: $x^2 - 4$

[3] They must both be perfect squares.



[4] The x -intercepts are the same as the second term in the binomial factors of $x^2 - 4$.