

NAME: _____

P.I. A2.A.4: Solve quadratic inequalities in one and two variables, algebraically and graphically

1. Explain how to determine whether to use a dashed or solid curve when graphing a quadratic inequality. Include examples.
2. Explain how to determine whether to shade above or below the curve when graphing a quadratic inequality. Include examples.

The curve is dashed if the inequality involves $<$ or $>$. The curve is solid if the inequality involves \leq or \geq . For example, the quadratic inequality $y < x^2 + 2$ requires a dashed curve and the quadratic inequality

[1] $y \geq x^2 - 2$ requires a solid curve.

Test a point not on the curve. If it makes the inequality true, shade that part of the plane. For example,

[2] with the quadratic inequality $y < x^2 + 2$ test the point $(0, 0)$. Since $0 < 2$, shade below the curve.
