Systems and Inequalities

- **Solve the related equation (=) to identify critical values. Use test points to determine correct intervals, or draw on a number line.**

- **When graphing, graph the related equation (=).**
  If ≤ or ≥, draw graph with a solid line or curve.
  If < or >, draw graph with a broken line or curve. Use test point (0, 0) to determine the area to shade.

- **Linear-quadratic systems may have 0, 1 or 2 solutions.**

- **Quadratic-quadratic systems may have 0, 1, 2 or infinite solutions.**

1. Solve: $2x^2 - 3x + 1 \geq 0$

2. Graph: $3x - 7y \geq -21$
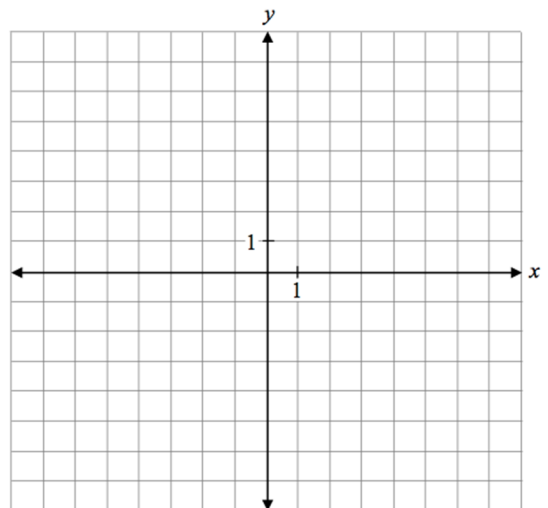
3. Graph: $y < 2(x - 3)^2 - 5$
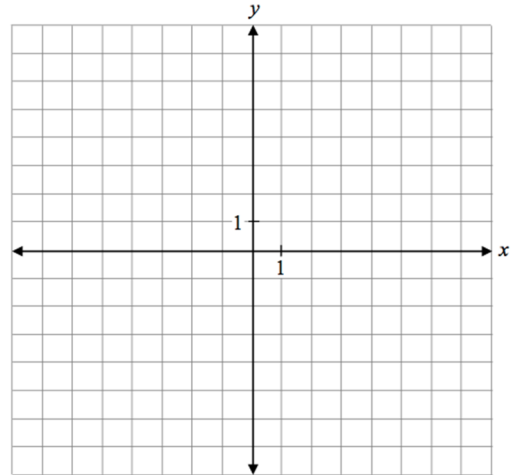
4. Solve Algebraically: $y = 3x + 2$
                            $y = 4x^2 + 3x + 1$

5. Solve by graphing: $y = x^2 + 5$
                          $y = -x^2 + 7$