

SIMULTANEOUS QUADRATIC INEQUALITIES

Name _____

Class _____

Date _____

A N S W E R S

1a

1b

2a

2b

3a

3b

4a

4b

Solve the following system of quadratic inequalities.

1. a.
$$\begin{cases} x^2 + 4x > 5 \\ x^2 < 2x + 8 \end{cases}$$

b.
$$\begin{cases} 6 > x^2 + x \\ 2x + 3 > x^2 \end{cases}$$

2. a.
$$\begin{cases} 6x^2 - 5x + 1 > 0 \\ 4x - 1 \geq 0 \end{cases}$$

b.
$$\begin{cases} 2x^2 + 3x + 1 \geq 0 \\ 3x - 11 > 0 \end{cases}$$

3. a.
$$\begin{cases} 2y^2 - 7y + 5 \leq 0 \\ y - 1 > 0 \end{cases}$$

b.
$$\begin{cases} 5 - 2y \leq 0 \\ y^2 - 6y + 8 > 0 \end{cases}$$

4. a.
$$\begin{cases} \frac{1}{9}x^2 \leq 1 \\ x^2 > 4 \end{cases}$$

b.
$$\begin{cases} \frac{1}{4}x^2 \leq 1 \\ x^2 > 1 \end{cases}$$

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