Name:
Group 1
Result:

1. Solve the following inequalities *(4 points)*

$x^2 - 4x > 12$

$2x^2 + 1 < x$

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2. For what values of parameter m the equation: *(2 points)*

$$2x^2 + 3x + m - 1 = 0$$

has two real solutions?

3. For what values of parameter k the inequality: *(4 points)*

$$kx^2 + (k+3)x + k > 0$$

is true for all value of $x \in \mathbb{R}$?

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4. On the same set of axes sketch the graphs of $y = x+6$ and $y = x^2 - x - 2$. Clearly indicate all axes intercepts, vertex and the points of intersections. *(5 points)*