Rational Inequalities

Name: _____ **Date**: _____ **Score**: _____

> Direction: Solve each rational inequality. Express the answer in interval notation. Show all your work in the space provided.

1) $\dfrac{x^2 - x - 2}{x + 3} < 0$

2) $\dfrac{x^2 + 2x - 15}{x^2 + 7x} > 0$

3) $\dfrac{x^2 + x - 6}{x^2 - 3x - 4} \le 0$

4) $\dfrac{x^2}{x^2 + x} \ge 0$

Rational Inequalities

Name: _____   **Date**: _____   **Score**: _____

Direction: Solve each rational inequality. Express the answer in interval notation. Show all your work in the space provided.

1) $\dfrac{x^2 - x - 2}{x + 3} < 0$

$(-\infty, -3) \cup (-1, 2)$

2) $\dfrac{x^2 + 2x - 15}{x^2 + 7x} > 0$

$(-\infty, -7) \cup (-5, 0) \cup (3, \infty)$

3) $\dfrac{x^2 + x - 6}{x^2 - 3x - 4} \leq 0$

$[-3, -1) \cup [2, 4)$

4) $\dfrac{x^2}{x^2 + x} \geq 0$

$(-\infty, -1) \cup [0, \infty)$