

Name: _____

Take-Home Quiz 3

Math 162 Analysis for the Business and Social Sciences – Crawford

Due: Friday, October 14 (by 2:30pm)

Books, notes, and calculators *are* allowed - ***but you must show all your work.*** You are allowed to work with each other and to get help from the tutors, but you cannot get help from me.

Solve the following nonlinear inequalities. Write your answer in interval notation AND graph it on the number line.

1. (5 pts) $x^2 + x - 20 < 0$

2. (5 pts) $x^2 \geq 4(3 - x)$

3. (5 pts) $x^3 - 6x^2 + 9x > 0$

4. (5 pts) $\frac{(x-3)(x-5)}{x^2} \geq 0$