

Math 22
Fall 2007
Exam I Supplement

Name: _____

Due Wednesday, 10/10. (-5 points if returned Thursday, 10/11, -10 points if returned Friday, 10/12).

Not accepted after Friday 10/12.

You may work together and use a calculator. There are 5 problems on two sides of this sheet.

You must show NEAT, correct work leading to the correct answer to receive full credit. Partial credit may be given. Circle or box your final answer.

1. [5 points] Solve for w .
$$\frac{1}{1 - \frac{3}{2 + w}} = 60$$

2. [5 points] Pat drove from State College to Cleveland, a distance of 250 miles. She increased her speed by 10 mi/hr for the 360-mile trip from Cleveland to Chicago. If the total trip took 11 hours, what was her speed from State College to Cleveland?

3. [5 points] Evaluate the expression and write the result in the form $a + bi$. $\frac{5-i}{3+4i}$

4. [5 points] Solve the inequality. Write your answer in interval notation. $\frac{3}{x-1} - \frac{4}{x} \geq 1$

5. [5 points] Complete the square to solve $3x^2 - 6x - 1 = 0$. (*Use of any other method to solve this quadratic will result in a score of 0 points.*)