

This take-home test is due on Friday, April 22nd, at the beginning of class. Any time before that, will suffice, but it will not be accepted after 8:50 a.m. on Friday.

1. (15 pts) Define variables, derive the equations, and write the augmented coefficient matrix for the following word problem. Then solve.

John invested a total of \$6530.00 in three areas: growth stocks, municipal bonds and blue-chip stocks. His rate of return at the end of a year was 10%, 5% and 2% from each area, respectively, and he earned a total of \$306.30. The sum of his investments in growth stocks and municipal bonds was \$1,000 more than the amount he invested in blue-chip stocks. How much did John invest in each area?

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2. (5 pts) Check your answer to #1 with matrix multiplication.