

YOUR NAME: _____

George Voutsadakis

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Your dad invested \$5,000 in two stocks, one of an automotive and the other of a high tech company. At the end of the year, the return rate of the automotive stock was 10% whereas that of the high tech company yielded 15%. If your dad's total earnings were \$650, how much did he invest in each stock?

(a) Introduce variables and **clearly state their meaning**.

(b) Write equation(s) reflecting the data in the problem.

(c) Solve the equations to answer the question posed.

2. Your brother has worked in a well-paying summer job and, with a little help from your parents, has decided to buy a used car. He wants to spend at most \$10,900 including the 6% sales tax and the \$300 license fee. Which price range would he be able to afford given his constraints?

(a) Introduce variables and **clearly state their meaning**.

(b) Write an **inequality** reflecting the data in the problem.

(c) Solve the inequality to answer the question posed.