Math 104 Quiz 1a **Fall '06**

Name:_____ 4 Digit PIN:_____ Score:_____

Instructions: You must show supporting work to receive full and partial credits. No text book, notes, formula sheets allowed.

1(4pts) Let $p = D(q) = 50 - 2q$ be the demand function for a product, and $p = S(q) = 3q$ be the corresponding supply function of the same product, where p is the unit price and q is the quantity of the product. Find the supply-demand equilibrium point.

2(3pts) Use the slope-point formula to write an equation for the line through points $(3, 1)$ and $(-1, 2)$.

3(3pts) The cost for manufacturing a product is $C(x) = 5x + 1000$ in dollars for x units of the product.

(a) What is the unit cost for the product?

(b) What is the fixed manufacturing cost?

(c) If the revenue is $R(x) = 7x$, will it be profitable by selling 100 units of the product?

END