Name 1:                                    Date:
Name 2:

We have two relations, Products(maker, model, type) and PC(model, speed, ram, hd, price). Consider the following transactions. Assume that the transactions might abort.

a) Given a speed and amount of RAM (as arguments to the function) look up the PC with that speed and RAM, printing the model number and price of each.

b) Given a model number, delete the tuple for that model from both PC and Product.

c) Given a model number, decrease the price of that model PC by 100.

d) Given a maker, model number, processor speed, RAM size, hd size and price, check that there is no product with that model. If there is, print an error. If no such model exists, insert it into the PC and product tables.

1) If only transactions **a** and **b** are allowed to run in our database. What is its minimal isolation level for each transaction without compromising the integrity of the database? What is the impact of this isolation level on the user running each transactions? Assume multiple instances of each transaction can  occur.

2) If only **c** and **d** are allowed to run, what is the impact (for the user running the transaction and for the integrity of the database) of the 4 different isolation levels on transaction **d**? Assume c runs serializable.