

Date:

Name 1:

Name 2:

Answer the following questions in both relational algebra and SQL. The SQL must match the Relational Algebra.

Assume the following schema:

Classes(class, type, country, numGuns, bore, displacement)

Ships(ship, class, launched)

Battles(battle, date)

Outcomes(ship, battle, result)

a) List the *ship*, *type*, *country*, *battle* and *result* for all ships.

b) For every ship that survived a battle (*result* = 'ok'), and for every ship that was sunk in that battle (*result* = 'sunk'), list the name of the *battle*, the surviving *ship*, and the sunk *ship*.