Quiz 3

CSE 101, Spring 2002

Issued Thursday, May 2, Due: in class

State your answers legibly and concisely. Your solutions will be graded on correctness, elegance, **clarity** and originality. Every problem is 25 points.

Problem 1. Find the sum $5^3 + 5^5 + 5^7 + 5^9 \ldots + 5^{97} + 5^{99}$.

Problem 2. Find the sum $1^2 - 2^2 + 3^2 - 4^2 + 5^2 - 6^2 \ldots + 99^2 - 100^2$.

Problem 3. Find a minimum spanning tree in the graph below. A graph may have several different minimum spanning trees. Is this the case for this graph? If so, find *all* minimum spanning trees for this graph.

Problem 4. Show how to find the top 3 elements in an array (i.e., max, second max, and third max) as quickly as possible.