Discrete Mathematics
Dr. Amin Witno
Final Exam
9-6-2003

Each answer, if correct, is worth 5 marks.

1. Draw the truth table for $(p \oplus q) \rightarrow (q \leftrightarrow p)$

2. Convert 0.5625 to binary.

3. A={1,2,3,4}. Give any example of a relation from A to A
which is not reflexive, not anti-symmetric, and is a function.

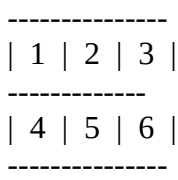
4. A=B={1,2,3,6,8} and R={(a,b)|a divides b} is a partial order relation.
Draw the Hasse diagram.

5. A=B={1,2,3,6,8} and R={(a,b)|3 divides a-b} is an equivalence relation.
Find the equivalence classes.

6. How many edges does K5 have?

7. Draw any complete bipartite graph which is not an Euler path.

8. Draw the dual graph of




9. Represent using a binary tree: {2-(7+5)}x{(6^2)/9}

10. Use the in-order traversal on this tree