

# The University of New South Wales

## COMP9315 DBMS Implementation

### Final Exam

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#### Question 6 (3 marks)

Consider the following tuple space for a relation  $T(A, B)$  which has been indexed/partitioned by a quad-tree.



- How many nodes are in the quad-tree?
- If we ask the query `select * from R where A > 40 and B < 'f'`, then which quadrants (and sub-quadrants and ...) would need to be examined?
- How many tuples (appearing as x's on the diagram) would be in the result set?

Show all working.

#### Instructions:

- Type your answer to this question into the file called `q6.txt`
- Submit via: **give cs9315 exam\_q6 q6.txt**  
or via: Webcms3 > exams > Final Exam > Submit Q6 > Make Submission

*End of Question*