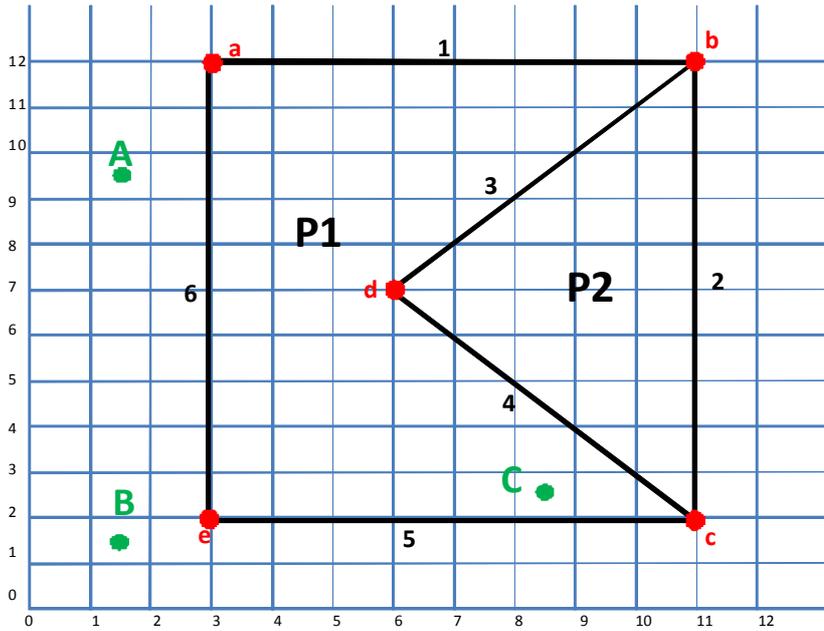


GIS 310
Class Test 2
4 April 2011

1. Illustrate (in a tabular form) how the structure of the following figure will be stored in a topological vector model:

(30)



| Point id | X | Y |
|----------|-----|-----|
| A | 1.6 | 9.5 |
| B | 1.5 | 1.4 |
| C | 8.5 | 2.6 |

| Node | X | Y |
|------|----|----|
| a | 3 | 12 |
| b | 11 | 12 |
| c | 11 | 2 |
| d | 6 | 7 |
| e | 3 | 2 |

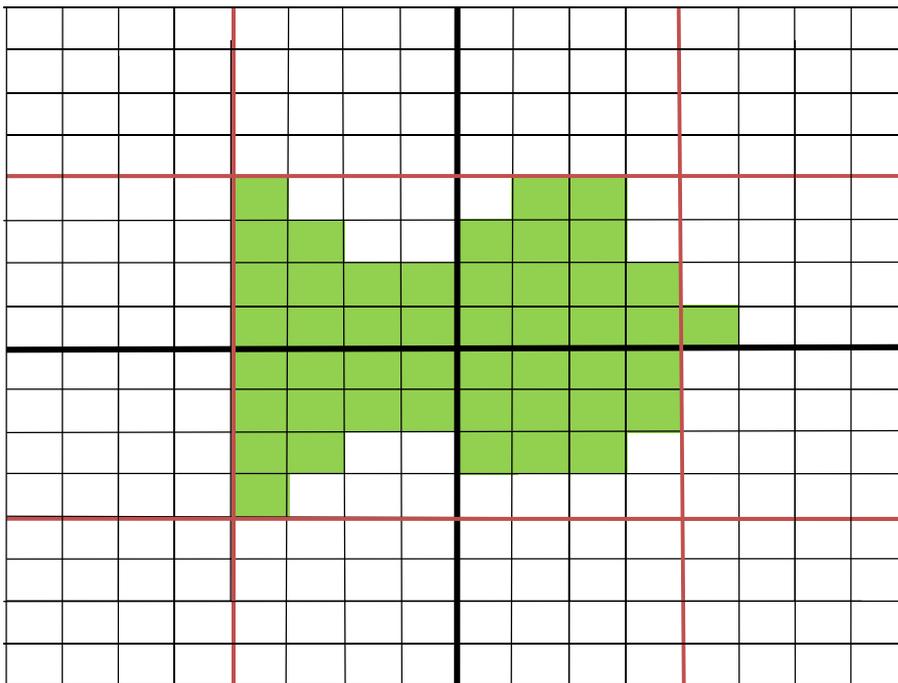
| Line id | Begin node | End node | Left poly | Right poly |
|---------|------------|----------|-----------|------------|
| 1 | a | b | - | P1 |
| 2 | b | c | - | P2 |
| 3 | b | d | P2 | P1 |
| 4 | c | d | P1 | P2 |
| 5 | c | e | - | P1 |
| 6 | e | a | - | P1 |

| Polygon id | Lines |
|------------|---------------|
| P1 | 1, 3, 4, 5, 6 |
| P2 | 2, 4, 3 |

2. Illustrate the raster layer that will be represented by the following quad tree table: (Use the attached grid to indicate your answer and hand in together with your paper)

(20)

Total 50



fs