- for position (3, 4.5) for Node A

a) the distance from (4,2) is

$$d = \sqrt{(4-3)^2 + (2-4.5)^2}$$

$$= \sqrt{(1)^2 + (-2.5)^2}$$

$$= \sqrt{1 + 6.25}$$

$$= 2.693$$

b) the distance from (2,5)

$$d = \sqrt{(2-3)^2 + (5-4.5)^2}$$

$$d = \sqrt{(-1)^2 + (0.5)^2}$$

$$d = \sqrt{1 + .25}$$

$$d = 1.118$$

Now the position of Node A is (3, 3.5) as it can hear beacon at positions (4,2) and (2,5) and the distance from both this points to (3,3.5) is less than 2. ∴ the position is (3, 3.5) as the other point has a distance >2 from one of the beacon shown above.