(CYCLOMATIC/MCCABE COMPLEXITY)

Consider the following quicksort sorting algorithm:

**QUICKSORT(A, p, r)**

**if p < r**

**then q ← PARTITION(A, p, r)**

**QUICKSORT(A, p, q − 1)   
QUICKSORT(A, q + 1, r)**

**where the PARTITION procedure is as follows:  
PARTITION(A, p, r)**

**x ← A[r]   
i ← p − 1   
for j ← p to r − 1**

**do if A[j] ≤ x**

**then i ← i + 1**

**exchange A[i] ↔ A[j]**

**exchange A[i + 1] ↔ A[r]  
return i + 1**

* Draw the flowchart of the above algorithm.
* Draw the corresponding graph and label the nodes as n1, n2, … and edges as e1, e2, …
* Calculate the cyclomatic complexity of the above algorithm