

CSC301 HW4

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Question 1

Based on the question, since n is a power of 2, n will always be even. The following is the pseudocode for the algorithm,

```
function v = MEDIAN(A,B,n)
    if n == 1 then return (A[0]+B[0])/2

    m1 = (A[n/2] + A[n/2-1])/2
    m2 = (B[n/2] + B[n/2-1])/2
    if m1 == m2
        then return m1
    if m1 < m2
        return MEDIAN(A[n/2:], B, n/2)
    else
        return MEDIAN(A, B[n/2:], n/2)
    end if
end function
```

Question 2

Question 3