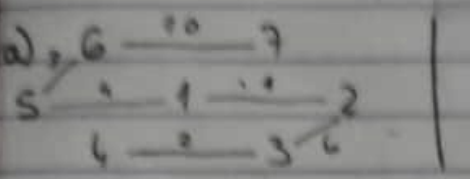
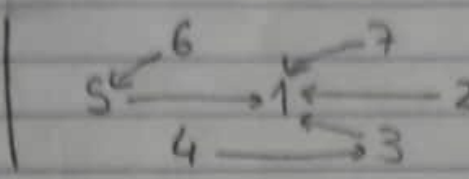
ENR4

1
```
Func rec(N, S, n, s, idx):
    if idx = n+1 { if s > n/2: print(S) }
    else:
        rec(N, S U {N[idx]}, n, s+1, idx+1)
        if (s+(n-idx) > n/2) rec(N, S, n, s, idx+1)
```

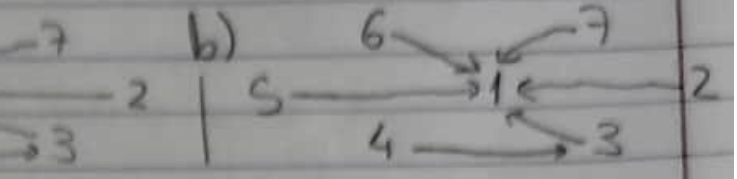
2

a)

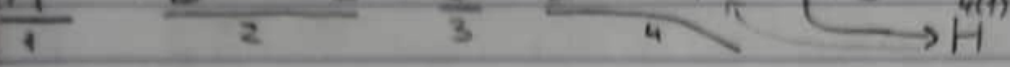




b)



3



{A}, {B, E}, {C}, {D, F, G, H}

4
```
Func TD(C, i, j)
    if dp[i, j] has a value: return dp[i, j]
    if i = j: dp[i, j] = 1
    else if i > j: dp[i, j] = 0
    else:
        dp[i, j] = 0
        for k = i → j:
            dp[i, j] += C[k] + min(TD(C, i, k-1) + TD(C, k+1, j))
    return dp[i, j]
```