NOV 2019 - HL - Paper 1 - Q13

Finn

a) MAT[3][4] = 4

b) function isValidMatrix(N, A)
    loop i = 0 to N-1
        loop j = 0 to N-1
            if (A[i][j] == 0)
                valid = false
                break
            else if (~~A[i][j]~~ j < N & A[i][j+1] == 0)
                valid = false
                break
            else if (i < N & A[i+1][j] == 0)
                valid = false
                break

forgot upper + lower Δ's

c) x = mystery (MAT, 5)
    5 + mystery (MAT, 4)
        7 + mystery (MAT, 3)
            -5 + mystery (MAT, 2)
                9 + mystery (MAT, 1)
                    1 + mystery (MAT, 0)
                        0

x = 5 + 7 + (-5) + 9 + 1 + 0
x = 17

d) Calculates the sum of all the elements of the lower sub-diagonal given array length N