mat =
$$\begin{matrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 10 & 11 & 12 \end{matrix}$$

func1(mat, 3, 4)

     n   m

↓   ↑ 64

mat[2][0] = func1(mat, 2, 4)

mat =
$$\begin{matrix} 1 & 2 & 3 & 4 \\ 10 & 6 & 7 & 8 \\ 31 & 10 & 11 & 12 \end{matrix}$$

↓   ↑ = 31

mat [1][0] = func1(mat, 1, 4)

↓   ↑ func2(mat[0], 4) = 10

mat[0][0] = func1(mat, 0, 4)

↓ ↑

return (1)

func2(0, 4)

↓

temp = 1 + 2 + 3 + 4 = 10

mat =
$$\begin{matrix} 1 & 2 & 3 & 4 \\ 10 & 6 & 7 & 8 \\ 9 & 10 & 1 & 12 \end{matrix}$$

func2(1, 4)

↓

temp = 10 + 6 + 7 + 8 = 31