Dx=4, Dy=4

blockDim.y = 4

blockDim.x = 4

blockIdx.x = 1
blockIdx.y = 2
threadIdx.x = 3
threadIdx.y = 1

thread (3,1) in block (1,2)

threadIdx:

$$x = \mathtt{blockIdx.x} \times \mathtt{blockDim.x} + \mathtt{threadIdx.x} = 1 \times 4 + 3 = 7$$

$$y = \mathtt{blockIdx.y} \times \mathtt{blockDim.y} + \mathtt{threadIdx.y} = 2 \times 4 + 1 = 9$$

threadId = 9 x 16+8