**Linear index to 3D index conversion:**  
We are given that the array's dimensions are 4×4×8, with the equation for converting a linear index to 3D format being:

w×(N×O)+x×O+y=Linear Index, Where w, x, and y represent the 3D indexes, and:

* N=4, O=8
* The length of the array in 1D = M×N×O= 4×4×8 = 128

With the value of N and O, the formula of the **linear index is = w×(4×8)+x×8+y**

### **1. For Linear Index = 96:**

Linear Index 96:

W = 96 // (4 \* 8) = 96 // 32 = 3

Remainder = 96 % (4 \* 8) = 96 % 32 = 0

X = 0 // 8 = 0

Remainder = 0 % 8 = 0

Y = Remainder from previous step = 0

3D Index for Linear Index 96: [3][0][0]

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**2. Linear Index 107:**

W = 107 // (4 \* 8) = 107 // 32 = 3

Remainder = 107 % (4 \* 8) = 107 % 32 = 11

X = 11 // 8 = 1

Remainder = 11 % 8 = 3

Y = 3

3D Index for Linear Index 107: [3][1][3]

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**3. Linear Index 60:**

W = 60 // (4 \* 8) = 60 // 32 = 1

Remainder = 60 % (4 \* 8) = 60 % 32 = 28

X = 28 // 8 = 3

Remainder = 28 % 8 = 4

Y = 4

3D Index for Linear Index 60: [1][3][4]