

$$\# \text{ of } x\text{points} = 4$$

$$\# \text{ of } y\text{points} = 5$$

$$\# \text{ of } z\text{points} = 3$$

$$\# \text{ of } x\text{cells} = 3$$

$$\# \text{ of } y\text{cells} = 4$$

$$\# \text{ of } z\text{cells} = 2$$

$$A_x = x\text{cells} \cdot z\text{cells} = 3 \cdot 2 = 6$$

$$A_y = y\text{cells} \cdot z\text{cells} = 4 \cdot 2 = 8$$

$$A_z = x\text{cells} \cdot y\text{cells} = 3 \cdot 4 = 12$$

$$\# \text{ of points} = x\text{points} \cdot y\text{points} \cdot z\text{points} = 4 \cdot 5 \cdot 3 = 60$$

$$\# \text{ of faces} = A_x \cdot y\text{points} + A_y \cdot x\text{points} + A_z \cdot z\text{points}$$

$$= 6 \cdot 5 + 8 \cdot 4 + 12 \cdot 3 = 98 = \# \text{ of corners}$$

$$\# \text{ of neighbors} = \# \text{ of } \begin{matrix} \text{external} \\ \text{internal} \end{matrix} \text{ faces} = \# \text{ of faces} - 2(A_x + A_y + A_z)$$

$$= 98 - 2(6 + 8 + 12) = 46$$

$$\# \text{ of cells} = x\text{cells} \cdot y\text{cells} \cdot z\text{cells} = 3 \cdot 4 \cdot 2 = 24$$

$$\# \text{ of boundaries} = A_x, A_y, A_z \text{ respectively.}$$

# Grid shown by Cell ID

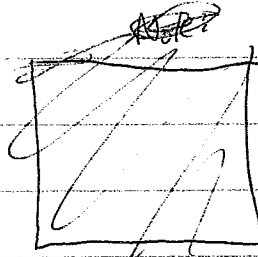
9	10	11
6	7	8
3	4	5
0	1	2

layer 1

21	22	23
18	19	20
15	16	17
12	13	14

layer 2

# Grid Shown by Face ID



notes for these first two  
#s in the middle are for the  
top.

46	48	50	63
55	25	24	27
17	20	22	62
54	18	16	21
9	12	14	61
53	10	8	13
1	4	6	60
52	2	5	3
70	72		

layer 1

47	49	51	67
58	44	45	68
40	42	43	66
58	39	41	66
35	37	38	65
57	34	36	65
30	32	33	64
56	29	31	69
64	71	73	

layer 2

top

77	81	85
76	80	84
75	79	83
74	78	82

(0,0,0) bottom of layer 1

89	93	97
88	92	96
87	91	95
86	90	94

(0,0,2) top of layer 2