

$\begin{pmatrix} 0 & 1 \\ 1 & 3 \end{pmatrix}$		$\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$	$\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$	$\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$
$\begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$	$\begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix}$			

$O_3 =$

$\begin{pmatrix} i_3 & i_2 & i_1 \end{pmatrix}$

$+ \begin{pmatrix} i_3 & i_2 & i_0 \end{pmatrix}$

$+ \begin{pmatrix} i_3 & i_2 & i_1 \end{pmatrix}$

O_2

$i_3 \ i_2 \ / \ i_1 \ i_0$	00	01	11	10
00		1	1	1
01	1			
11				
10		1		

$$O_2 = \overline{i_3} \ i_2 \ \overline{i_1} \ \overline{i_0} + \overline{i_2} \ \overline{i_1} \ i_0 + \overline{i_3} \ \overline{i_2} \ i_1$$

$$O_1 = \overline{i_2} \ \overline{i_1} \ i_0 + \overline{i_3} \ \overline{i_1} \ i_0 + \overline{i_3} \ i_1 \ \overline{i_0}$$

$$O_0 = i_0 \ \overline{i_3} + i_0 \ \overline{i_1} \ \overline{i_2}$$

$i \rightarrow 6 \text{ bit};$ is 6

$$2^6 = 64 \rightarrow i / 10 = 6$$

$i \text{ 3 bit};$ $0 \rightarrow 7$

$$i = 4k - 1$$

$$k = 1; 2$$

$$i = 3, 7$$

011 111

6 bit:

is 6

16 8 4 2
1111

~~15~~ 31
61

60 ... 63 $\rightarrow 1$

1

0 --- 59 $\rightarrow 0$

62

10

63 11

60	2
30	
15	
7	
3	
1	

0 1 1 1 1 0 0
2 2 2 2 2

$$32 + 16 + 8 + 4$$