

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

$O_3 =$

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

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

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

$O_2$

$i_3 \ i_2 \ / \ i_1 \ i_0$	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

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

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

$$i = 4k - 1 \quad k = 1; 2$$

$$i = 3, 7$$

011 111

6 bit; is 6  $16 \quad 8 \quad 4 \quad 2$   
 $1111$  ~~15~~ 31  
 $61$

60 ... 63  $\rightarrow 1$   $1$

0 --- 59  $\rightarrow 0$   $62$   
 $10$

$63 \quad 11$

60	2
30	
15	
7	
3	
1	

0  $1 \ 1 \ 1 \ 1 \ 0 \ 0$   
 $2^5 \ 2^4 \ 2^3 \ 2^2$

$$32 + 16 + 8 + 4$$

1  
1  
1  
1