Ques Cyclic Left Shift

$N \Rightarrow$ $1 \leq \boxed{N} \leq 2^{32} - 1$

→ 32 bit number

$$
\begin{array}{cccccccc}
1 & 0 & 1 & 1 & 0 & 1 & 1 & 1 \\
\hline
7 & 6 & 5 & 4 & 3 & 2 & 1 & 0
\end{array}
$$

$$
\begin{array}{ll}
1\,0\,1\,1 & 9 \\
0\,1\,1\,1 & 7 \\
1\,1\,1\,0 & 14 \\
1\,1\,0\,1 & 13 \\
1\,0\,1\,1 & 9
\end{array}
\Bigg] \Rightarrow 14
$$

32 bit

↓

32 different

⇒ max

$$
\begin{array}{cccccccc}
\cdot\,1 & 0 & 1 & 1 & 0 & 1 & 1 & 1 \\
\hline
7 & 6 & 5 & 4 & 3 & 2 & 1 & 0
\end{array}
$$

n
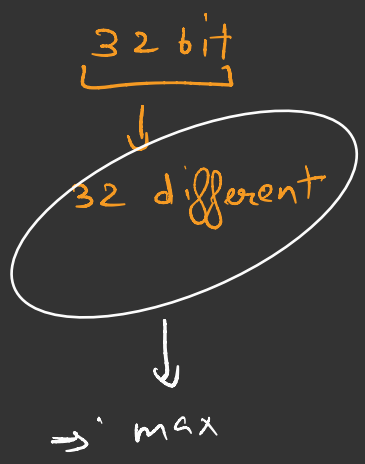
$$1\,0\,1\,1\,1\,1\,0\,1\,\cdot$$

$3rd$

$n << 3$

$1\,0\,1\,1\,1\,0\,0\,0$

$n >> 5$

$$
\begin{array}{l}
0\,0\,0\,0\,0\,1\,0\,1 \\
\hline
1\,0\,1\,1\,1\,1\,0\,1
\end{array}
$$

$1 \rightarrow 32 \qquad i$

n

32

0 1
MS
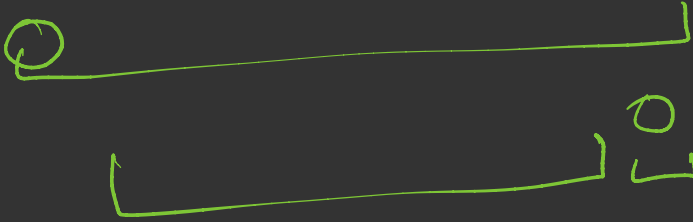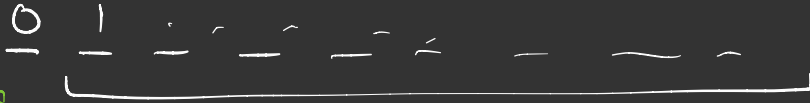
32bit

$1 << 1$

$\rightarrow 10 \twoheadrightarrow 2$
$\qquad 100 \twoheadrightarrow 4$
$\qquad 1000 \twoheadrightarrow 8$

-1

0 0 0 0 0 0 0 0 0 1

((((( ) (( ) 0

+ 1
_____

(((( ) ((( )))

0 0 0 0 0 0 0 0 0 0

+ 1
_____

! !

⇒ -1