

(-6) \*

PV

|   |   |
|---|---|
| 1 | 0 |
| 0 | 1 |

|   |   |
|---|---|
| F | T |
| T | F |

Bitwise NOT  $\rightarrow$   $s \rightarrow 0101$

$\sim s \rightarrow 1010$

$$(-6) \rightarrow \text{abs}(-6) = 6$$

$$b_{\text{bin}} = 0110$$

$$= 10$$

\* TV

$$\begin{array}{rcl} 2^4 & \left\{ \begin{array}{l} 1's C = 1001 \\ 0^m \quad \left\{ +1 = 0001 \end{array} \right. \end{array} \\ \hline & & 1010 \end{array}$$

MCG:  $\sim s$     (a)  $s$     (b)  $6$     (c)  $10$     (d)  $-6$

$$n \rightarrow \sim n = -n - 1$$

$$-s - 1 = -6$$

$$(-500) = -(-500) - 1 = 500 - 1 = 499$$

Power of Two  $\Rightarrow$

$$(n \& (n-1) == 0)$$

$$\begin{array}{r} 10000 \\ 2^4 \\ 16 \\ 01111 \end{array}$$

$$\leftarrow 0011 \rightarrow$$

$$\begin{array}{r} 1000 \\ 2^3 \\ 8 \\ 0111 \end{array}$$

$$\begin{array}{r} 0100 \\ 2^2 \\ 4 \end{array}$$

$$1001$$

$$0110$$

$$9 \times 1000$$

$$6x$$

$$\text{num} = 0011$$

if  $(n \& (n-1) == 0)$  {

power of 2;

else {

not power of 2;