

Modular Arithmetic

Some useful Identities

- $(a * b) \% n = (a \% n * b \% n) \% n$
- $(a^b) \% n = (a \% n)^b \% n$
- $(1/a) \% n \rightarrow$ Modular Multiplicative Inverse
- $((a * b) \% n * (1/a) \% n) \% n = b \% n$
- $a \% 2^n = a \& (n-1)$
- When -ve result $\rightarrow (result + n) \% n$