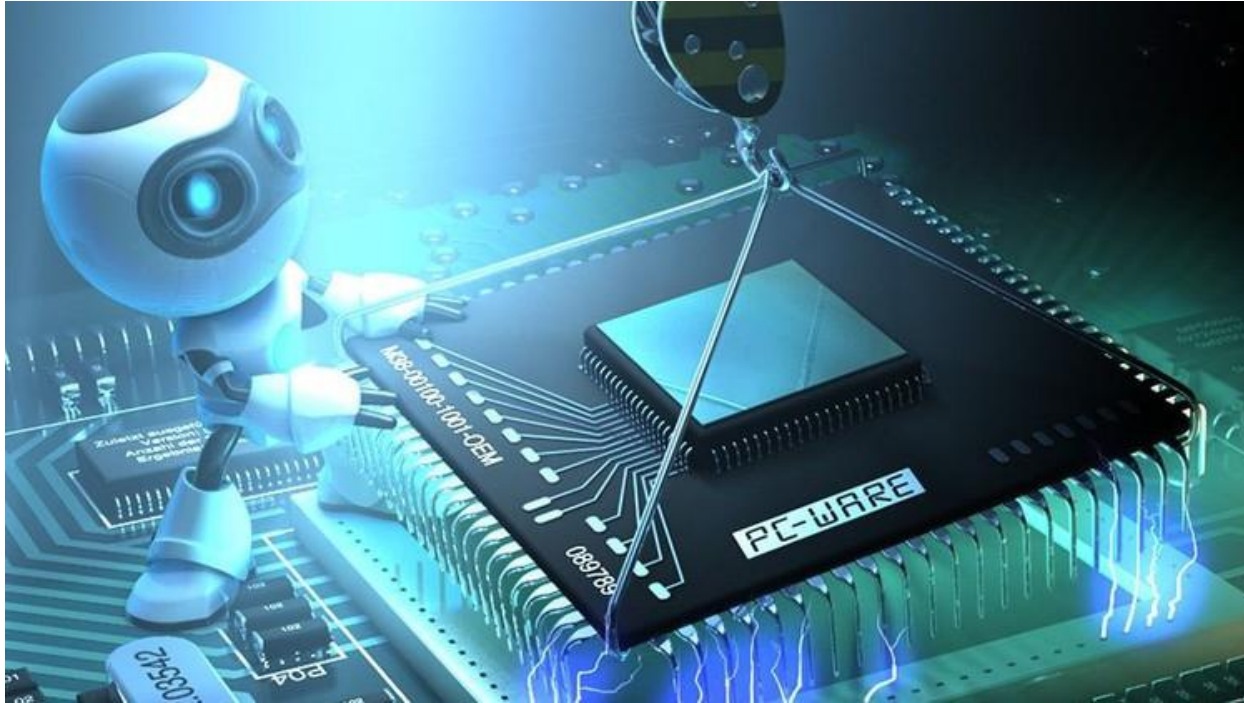


# Advanced Arithmetic Instructions



# Advanced Arithmetic Instructions



Instructions	Description	Notes	Example
IMUL op1, op2	$op2 \leftarrow op2 \cdot op1$	op2: register	IMUL (%EBX),%EAX
IMUL inm,op1,op2	$op2 \leftarrow op1 \cdot inm$	inm: constant	IMUL \$3,%EAX,%ECX
IMULL op1	$\%EDX\%EAX \leftarrow op1 \cdot \%EAX$	op1: mem. o reg. (Integers)	IMULL (%EBX)
MULL op1	$\%EDX\%EAX \leftarrow op1 \cdot \%EAX$	op1: mem. o reg. (Naturals)	MULL (%EBX)
CLTD	$\%EDX\%EAX \leftarrow \text{ExtSign}(\%EAX)$		CLTD
IDIVL op1	$\%EAX \leftarrow \%EDX\%EAX / op1$ $\%EDX \leftarrow \%EDX\%EAX \% op1$	op1: mem. o reg. (Integers)	IDIVL (%EBX)
DIVL op1	$\%EAX \leftarrow \%EDX\%EAX / op1$ $\%EDX \leftarrow \%EDX\%EAX \% op1$	op1: mem. o reg. (Naturals)	DIVL %ESI