

The following opcodes are used for **Modulus**:

- MODI — Mod by Signed Integer
- MODU — Mod by Unsigned Integer

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??? abstract "MODI — *Mod by Signed Integer*"

```
=== "Properties"
```

Property	Value
-----	-----
**Opcode**	17
**Type**	Arithmetic
**Operand Type**	Signed 64-bit integer
**Destination**	`L2` (implicit)

```
=== "Algorithm"
```

```
...  
L2 = L2 % <signed_imm>  
L2 = L2 % <reg_val>  
L2 = L2 % <const>  
...
```

```
=== "Example"
```

```
...  
; imm +ve  
  MODI    1  
; imm -ve  
  MODI   -123  
; reg val  
  MODI   val(QT)  
; const  
  MODI   SOME_CONST_VAL  
...
```

??? abstract "MODU — *Mod by Unsigned Integer*"

```
=== "Properties"
```

Property	Value
-----	-----
**Opcode**	22
**Type**	Arithmetic
**Operand Type**	Unsigned 64-bit value
**Destination**	`L3` (implicit)

```
=== "Algorithm"
```

```
    \ \ \
```

```
    L3 = L3 % <unsigned_imm>
```

```
    L3 = L3 % <reg_val>
```

```
    L3 = L3 % <const>
```

```
    \ \ \
```

```
=== "Example"
```

```
    \ \ \
```

```
    ; imm +ve
```

```
        MODU    1
```

```
    ; reg val
```

```
        MODU    val(QT)
```

```
    ; const
```

```
        MODU    SOME_CONST_VAL
```

```
    \ \ \
```