

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

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

??? 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
```

```
    \ \ \
```