

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

- DIVI — Divide by Signed Integer
- DIVU — Divide by Unsigned Integer
- DIVF — Divide by Floating Point

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### DIVI — *Divide by Signed Integer*

```
L2 = L2 / <signed_imm>
L2 = L2 / <reg_val>
L2 = L2 / <const>
```

=== "DIVI Example"

```
```linenums="1" hl_lines="1 3 5 7"
; imm +ve
    DIVI    1
; imm -ve
    DIVI   -123
; reg val
    DIVI   val(QT)
; const
    DIVI   SOME_CONST_VAL
```
```

=== "DIVI Properties"

| Opcode | Operand Type          | Destination   |
|--------|-----------------------|---------------|
| 16     | Signed 64-bit integer | L2 (implicit) |

Identified as mnemonic [#16](#DIVI), DIVI is used to divide the L2 register by a 64-bit signed value

### DIVU — *Divide by Unsigned Integer*

```
L3 = L3 / <unsigned_imm>
L3 = L3 / <reg_val>
L3 = L3 / <const>
```

=== "Properties"

| Property                | Value                 |
|-------------------------|-----------------------|
| -----                   | -----                 |
| <b>**Opcode**</b>       | 21                    |
| <b>**Type**</b>         | Arithmetic            |
| <b>**Operand Type**</b> | Unsigned 64-bit value |
| <b>**Destination**</b>  | `L3` (implicit)       |

=== "Example"

```
```\n; imm +ve\n    DIVU    1\n; reg val\n    DIVU    val(QT)\n; const\n    DIVU    SOME_CONST_VAL\n```\n
```

## DIVF — *Divide by Float value*

=== "Properties"

| Property                | Value              |
|-------------------------|--------------------|
| -----                   | -----              |
| <b>**Opcode**</b>       | 26                 |
| <b>**Type**</b>         | Arithmetic         |
| <b>**Operand Type**</b> | 64-bit float value |
| <b>**Destination**</b>  | `L1` (implicit)    |

=== "Algorithm"

```
```\nL1 = L1 / <float>\nL1 = L1 / <reg_val>\nL1 = L1 / <const>\n```\n
```

=== "Example"

```
```\n; imm float\n    DIVF    3.14\n; reg val\n    DIVF    val(QT)\n```\n
```

```
; const
    DIVF    SOME_CONST_VAL

...
```

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