(3)

(1)

- ~~Right to ...~~

## Practical - 1

1. Convert $(1056)_{16}$ to $(?)_8$ :

→ $1056_{16}$

↓

$?_2$

1 0 5 6

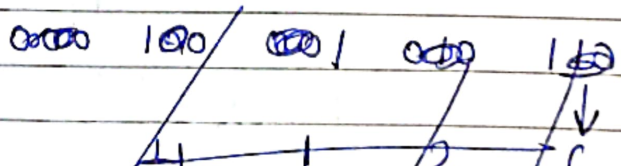
0001 0000 0101 0110

↓

$0001000001010110_2$

↓

$?_8$




→ $1026_8$

001 000 001 010 110

↓ ↓ ↓ ↓ ↓

1 0 1 2 6

→ $(10126)_8$

(2)

2. $(11672)_8$ to $(?)_{16}$

$(11672)_8$

↓

$?_2$

| 1 | 1 | 6 | 7 | 2 |
|---|---|---|---|---|
| 001 | 001 | 110 | 111 | 010 |

↓

$001001110111010_2$

↓

$(?)_{16}$

| 001 | 0011 | 1011 | 1010 |
|---|---|---|---|
| ↓ | ↓ | | |
| 1 | 3 | 11 | 10 |

→ $13BA_{16}$ ✓

3. $(2724)_8 \rightarrow ?_{10}$

↓

$?_2$

| 2 | 7 | 2 | 4 |
|---|---|---|---|
| 010 | 111 | 010 | 100 |

→ $010111010100_2 \rightarrow ?_{10}$

③

→ $\underset{0}{0 \times 2^0} + \underset{0}{0 \times 2^1} + 1 \times 2^2 + 0 \times 2^3 + 1 \times 2^4 + 0 \times 2^5$

$+ 1 \times 2^6 + 1 \times 2^7 + 1 \times 2^8 + .0 \times 2^9 + 1 \times 2^{10} + 0 \times 2^{11}$

→ $4 + 16 + 64 + 128 + 256 + 1024$

→ $1492_{10}$ ✓.

4. $(3211)_4$ to $?_5$.

$3211_4$ →

$1 \times 4^0 + 1 \times 4^1 + 2 \times 4^2 + 3 \times 4^3$.

$1 + 4 + 32 + 192$

$= 229_{10}$

↓

$?_5$

| 5 | 229 | |
|---|---|---|
| 5 | 45 | 4 |
| 5 | 9 | 0 |
| 5 | 1 | 4 |
| | 0 | 1 |

→ $1404_5$ ✓.

④

5. $(1001001100)_2 \rightarrow ?_6$

$1001001100 \searrow$

Bi $?_{10}$

$2^0 \times 0 + 0 \times 2^1 + 1 \times 2^2 + 1 \times 2^3 + 0 \times 2^4 + 0 \times 2^5 +$

$1 \times 2^6 + 0 \times 2^7 + 0 \times 2^8 + 1 \times 2^9$

$0 + 0 + 4 + 8 + 0 + 0 + 64 + 512$

$= 588_{10} \searrow$

$?_6$

| 6 | 588 | |
|---|---|---|
| 6 | 98 | 0 |
| 6 | 16 | 2 |
| 6 | 2 | 4 |
| | 0 | 2 |

$\rightarrow \quad 2420_6$ ✓