

§5 n進法

・n進法から10進法への変換

$$1234_{(10)} \quad \begin{array}{l} \text{10進法(普通は省略)} \\ \text{各位の数は0~9} \end{array}$$

$$= 1 \cdot 10^3 + 2 \cdot 10^2 + 3 \cdot 10^1 + 4 \cdot 10^0$$

$$1010_{(2)} \quad \begin{array}{l} \text{2進法} \\ \text{各位の数は0~1} \end{array}$$

$$= 1 \cdot 2^3 + 0 \cdot 2^2 + 1 \cdot 2^1 + 0 \cdot 2^0$$

$$= 10$$

$$0.1234_{(10)}$$

$$= 1 \cdot \frac{1}{10^1} + 2 \cdot \frac{1}{10^2} + 3 \cdot \frac{1}{10^3} + 4 \cdot \frac{1}{10^4}$$

$$0.1011_{(2)}$$

$$= 1 \cdot \frac{1}{2^1} + 0 \cdot \frac{1}{2^2} + 1 \cdot \frac{1}{2^3} + 1 \cdot \frac{1}{2^4}$$

$$= 0.6875$$

$$\begin{aligned} \text{(例)} \quad 1201_{(3)} &= 1 \cdot 3^3 + 2 \cdot 3^2 + 0 \cdot 3^1 + 1 \cdot 3^0 \\ &= 46_{(10)} \end{aligned}$$

$$\begin{aligned} 0.123_{(5)} &= 1 \cdot \frac{1}{5^1} + 2 \cdot \frac{1}{5^2} + 3 \cdot \frac{1}{5^3} \\ &= 0.304 \end{aligned}$$