

# 物理基礎

## 1. 長度的單位換算：

$$\text{km} \xrightarrow{+3} \text{m} \xrightarrow{+2} \text{cm} \xrightarrow{+1} \text{mm}$$

- (1)  $4.2 \times 10^5 \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (2)  $5.3 \times 10^2 \text{ m} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (3)  $6.9 \times 10^9 \text{ cm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ mm}$
- (4)  $7.5 \times 10^4 \text{ mm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm}$
- (5)  $2.9 \times 10^{-3} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (6)  $6.7 \times 10^{-4} \text{ m} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (7)  $2.1 \times 10^{-3} \text{ cm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ mm}$
- (8)  $3.8 \times 10^{-2} \text{ mm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm}$

## 2. 面積的單位換算：

$$\text{km}^2 \xrightarrow{+6} \text{m}^2 \xrightarrow{+4} \text{cm}^2 \xrightarrow{+2} \text{mm}^2$$

- (1)  $7.8 \times 10^4 \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (2)  $6.4 \times 10^5 \text{ m}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (3)  $7.2 \times 10^6 \text{ cm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (4)  $6.3 \times 10^9 \text{ mm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2$
- (5)  $9 \times 10^{-2} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (6)  $2 \times 10^{-6} \text{ m}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (7)  $6 \times 10^{-2} \text{ mm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2$
- (8)  $3 \times 10^{-9} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (9)  $2 \times 10^{-4} \text{ m}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (10)  $7 \times 10^{-7} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$

## 3. 體積的單位換算

$$\text{km}^3 \xrightarrow{+9} \text{m}^3 \xrightarrow{+6} \text{cm}^3 \xrightarrow{+3} \text{mm}^3$$

- (1)  $3.1 \times 10^4 \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (2)  $5.4 \times 10^7 \text{ m}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (3)  $3.7 \times 10^8 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (4)  $2.9 \times 10^2 \text{ mm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ cm}^3$
- (5)  $1.5 \times 10^{-1} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (6)  $9.2 \times 10^{-8} \text{ m}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (7)  $4.9 \times 10^{-7} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (8)  $7.3 \times 10^{-3} \text{ mm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ cm}^3$
- (9)  $7.6 \times 10^3 \text{ mm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ cm}^3$
- (10)  $4.3 \times 10^{-1} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$

- (1)  $3.8 \times 10^3 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (2)  $1.3 \times 10^{-2} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (3)  $4.9 \times 10^3 \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (4)  $2.8 \times 10^{-5} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (5)  $7.2 \times 10^2 \text{ m}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (6)  $5.6 \times 10^{-3} \text{ mm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm}$
- (7)  $3.0 \times 10^6 \text{ m}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (8)  $2.5 \times 10^1 \text{ mm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2$
- (9)  $6.3 \times 10^{-4} \text{ cm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ mm}$
- (10)  $4.3 \times 10^7 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (11)  $8.1 \times 10^{-4} \text{ m}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (12)  $5.4 \times 10^{-1} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (13)  $6.3 \times 10^8 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (14)  $7.4 \times 10^{-3} \text{ cm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ mm}$
- (15)  $5.9 \times 10^{-5} \text{ mm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2$
- (16)  $6.0 \times 10^6 \text{ mm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm}$
- (17)  $7.8 \times 10^5 \text{ m} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (18)  $3.4 \times 10^{-2} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (19)  $5.3 \times 10^{-6} \text{ m}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (20)  $2 \times 10^3 \text{ mm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2$
- (21)  $4 \times 10^2 \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (22)  $6 \times 10^{-4} \text{ cm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ mm}$
- (23)  $3 \times 10^{-6} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (24)  $7 \times 10^3 \text{ m} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$
- (25)  $5 \times 10^{-1} \text{ mm} = \underline{\hspace{2cm}} \text{ km} = \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ cm}$
- (26)  $6 \times 10^4 \text{ cm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ mm}^2$
- (27)  $8 \times 10^9 \text{ m}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (28)  $9 \times 10^{-3} \text{ mm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ cm}^2$
- (29)  $3 \times 10^4 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ km}^3 = \underline{\hspace{2cm}} \text{ m}^3 = \underline{\hspace{2cm}} \text{ mm}^3$
- (30)  $4.3 \times 10^{-1} \text{ cm}^2 = \underline{\hspace{2cm}} \text{ km}^2 = \underline{\hspace{2cm}} \text{ m}^2 = \underline{\hspace{2cm}} \text{ mm}^2$