# 🔁 Common Time Conversions

| Unit | Relationship |
|------|--------------|
| 1 minute | 60 seconds |
| 1 hour | 60 minutes |
| 1 day | 24 hours |
| 1 week | 7 days |
| 1 year | 12 months or 365 days (366 for leap year) |
| 1 month | ~30 or 31 days (February = 28/29 days) |

# 🖼 Examples: Time Unit Conversion

**Example 1:**

Convert **3 hours** into **minutes**.

**Solution:**

$$3 \text{ hours} \times 60 = \boxed{180 \text{ minutes}}$$

**Example 2:**

Convert **150 minutes** into **hours and minutes**.

**Solution:**

$$150 \div 60 = 2 \text{ hours and } 30 \text{ minutes}$$

$$\boxed{2 \text{ h } 30 \text{ min}}$$

**Example 3:**

How many seconds in **2.5 minutes**?

**Solution:**

$$2.5 \times 60 = \boxed{150 \text{ seconds}}$$

# 2. 12-Hour and 24-Hour Clocks

## 12-Hour Clock (AM/PM Format)

- **AM** = Morning (Midnight to 11:59 AM)

- **PM** = Afternoon and evening (12:00 PM to 11:59 PM)

## 24-Hour Clock

- No AM/PM

- Hours go from 00:00 to 23:59

  - 1 AM = 01:00

  - 12 PM (noon) = 12:00

  - 1 PM = 13:00

  - 11 PM = 23:00

  - Midnight = 00:00

## 🔄 Conversion Examples

**Example 1:**

Convert **3:15 PM** to 24-hour time.

**Solution:**

3 PM = 15:00 →

$$15:15$$

**Example 4:**

How many days are in **5 weeks and 3 days**?

**Solution:**

$$5 \times 7 = 35 \text{ days}$$
$$35 + 3 = \boxed{38 \text{ days}}$$

**Example 2:**

Convert **07:45 (24-hour)** to 12-hour time.

**Solution:**

07:45 = 7:45 AM

$$7:45AM$$

**Example 3:**

Convert **00:30** to 12-hour time.

**Solution:**

00:30 = 12:30 AM

$$12:30AM$$

# 🚌 3. Reading Clocks and Timetables

## 🕐 Reading Analog Clocks

- **Short hand** = hours

- **Long hand** = minutes

- Each number on the clock represents 5 minutes.

## ⏰ Example:

If the short hand is on 4 and the long hand is on 6:

→ 6 × 5 = 30 minutes

→ Time is **4:30**

# 📅 Reading Timetables

**Sample Train Timetable:**

| Station | Arrival | Departure |
|---------|---------|-----------|
| A | — | 07:15 |
| B | 07:45 | 07:50 |
| C | 08:20 | — |

**Example 1:**

How long does it take from Station A to B?

**Solution:**

07:45 - 07:15 = 30 minutes

$$\boxed{30 \text{ minutes}}$$

**Example 2:**

What is the total journey time from A to C?

**Solution:**

08:20 - 07:15 = 1 hour 5 minutes

$$\boxed{1 \text{ h } 5 \text{ min}}$$