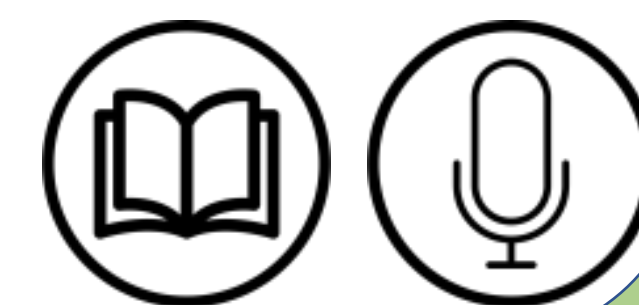# CLOCK
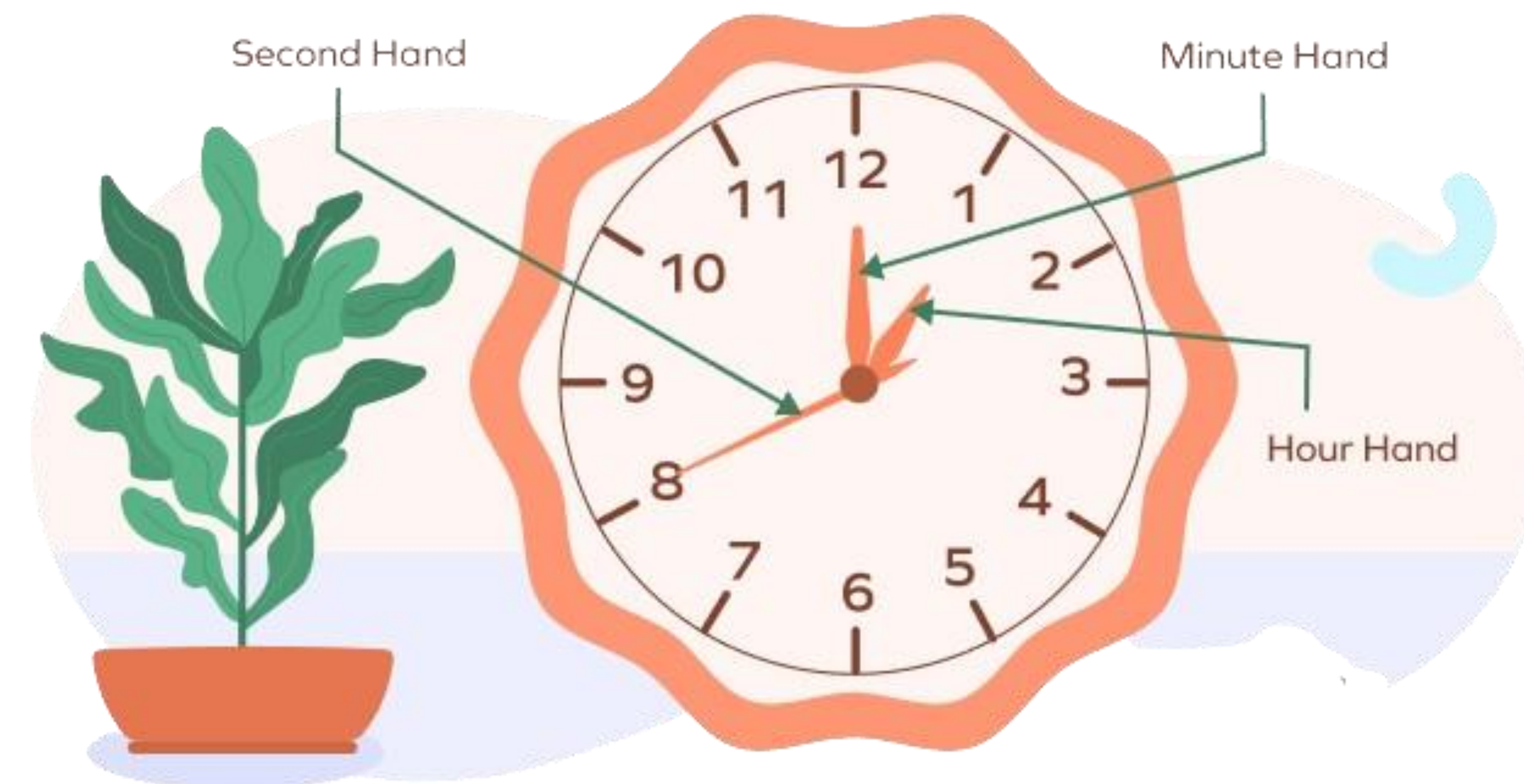
- A clock is a device that measures and displays time.

- The face of the clock is marked with numerals (1 to 12) and lines.

- The clock is an instrument to measure time which is shown in hours, minutes and seconds.

- Units of time

  ➢ **Hours**

  ➢ **Minutes**

  ➢ **Seconds**

❑ The clock generally has three hands to tell us time
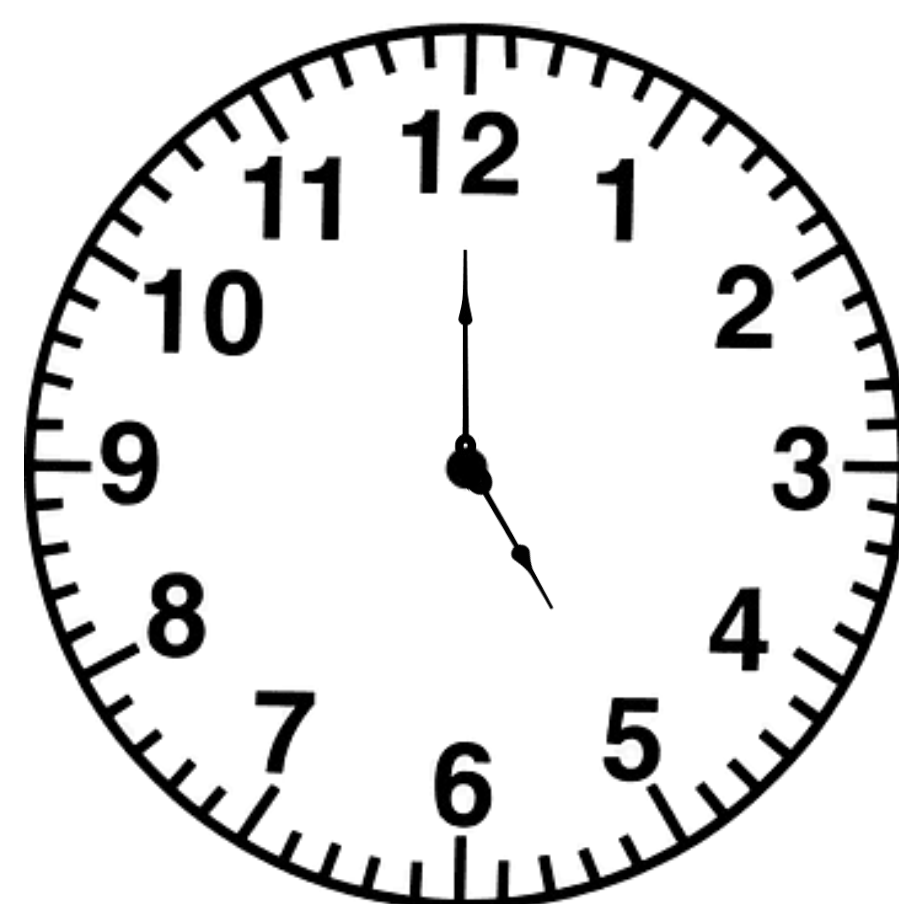
- Hour hand

- Minute hand

- Second hand

❑ Some analog clocks have only two hands:

➢ The shorter hand represents the hours.

➢ The longer hand indicates the minutes.

The minute hand

The hour hand

What is the time?

The **shorter hand** of the clock is **at 5**.
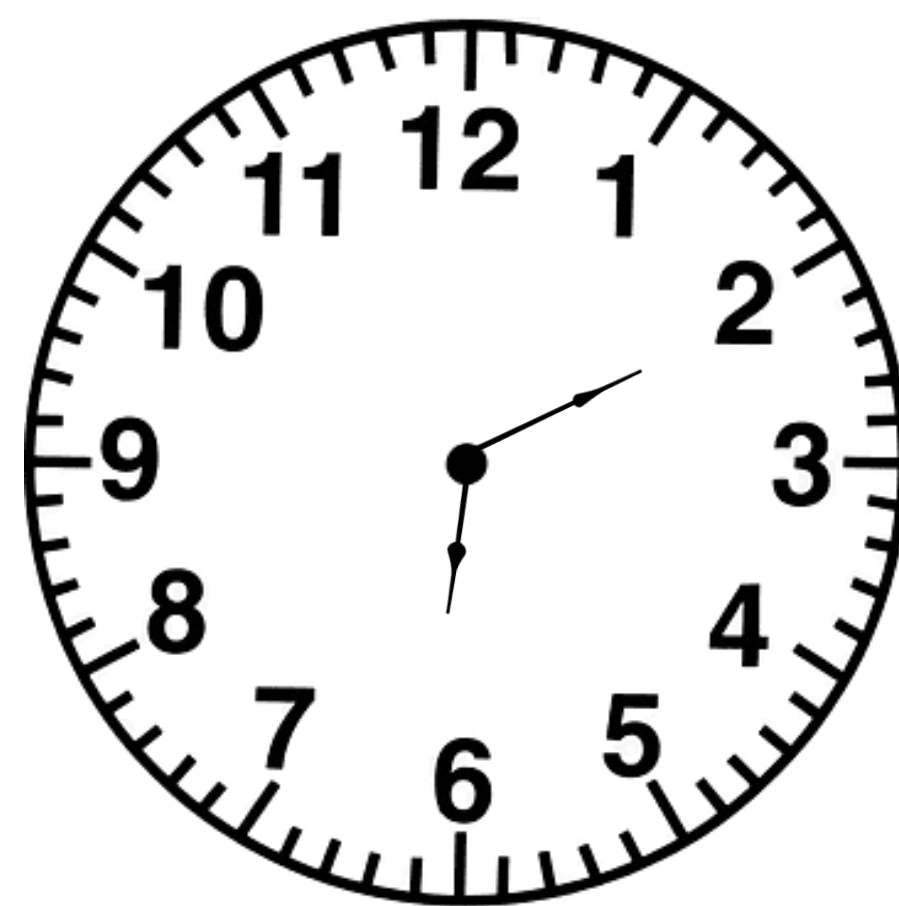
The **longer hand** of the clock is **at 12**.

So the **time is 5'O clock**.

We write it as **5:00**.

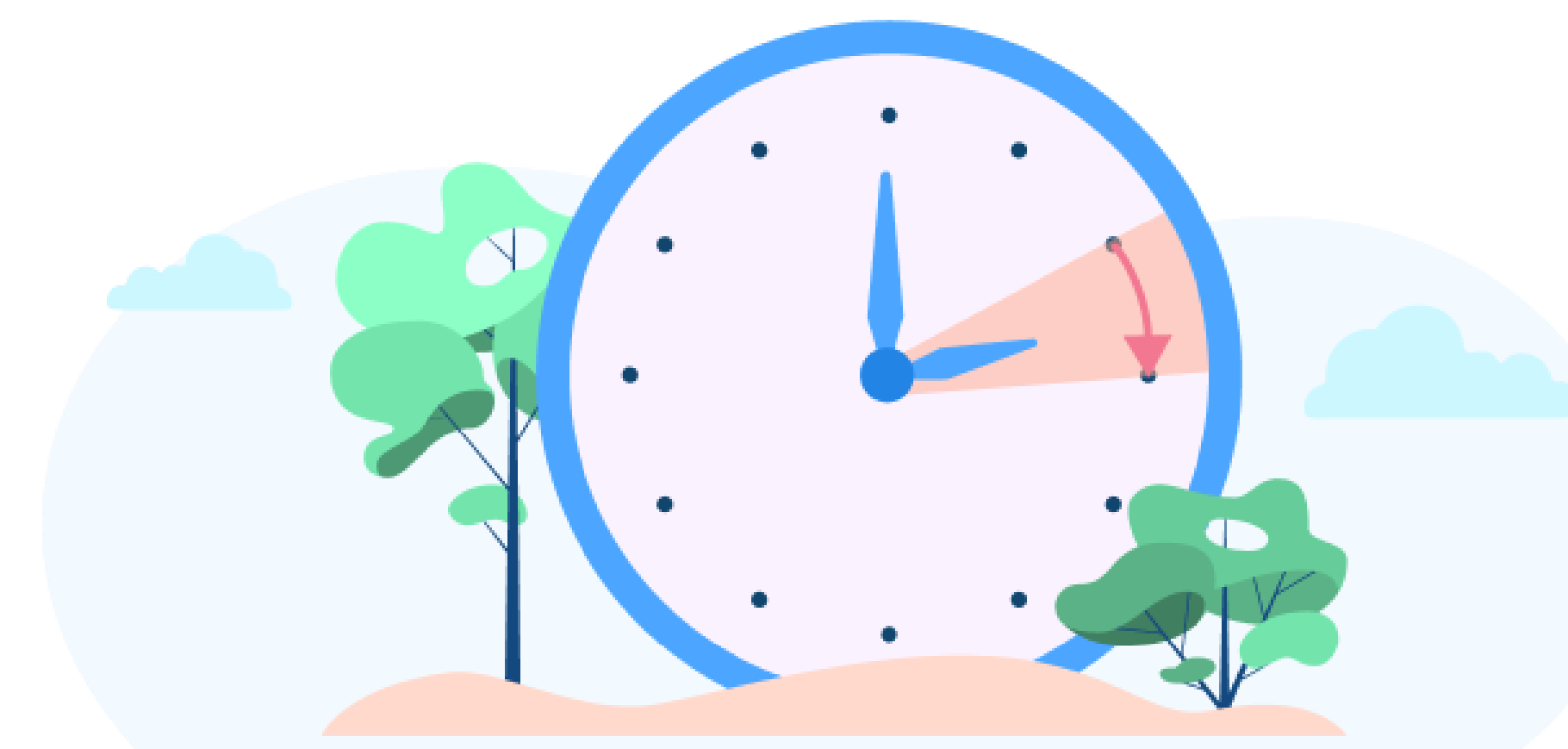What is the time?

The **shorter hand** of the clock is **at 6**.

The **longer hand** of the clock is **at 10**.

So the **time is 6 hours and 10 minutes**.

We write it as **6:10**.

➢ The shortest hand or the little hand displays the current hour.

➢ In a day, there are 24 hours, and since the clock only has numbers till 12, the hour hand goes around the clock 2 times.

➢ Once, from midnight to noon and then noon to midnight..

➢ The space between two numbers on the clock represents an hour.

➢ When the hour hand on a clock travels from one number to the next, it represents the passing of one hour.

❖ The minute hand on a clock is the long hand that tells the minutes that have passed in that hour.

❖ In simple words, it indicates the time in minutes.

❖ The distance between two numbers on the clock face is divided into 5 small sections.

❖ Each of these small sections or divisions represents one minute.

Each such division represents one minute
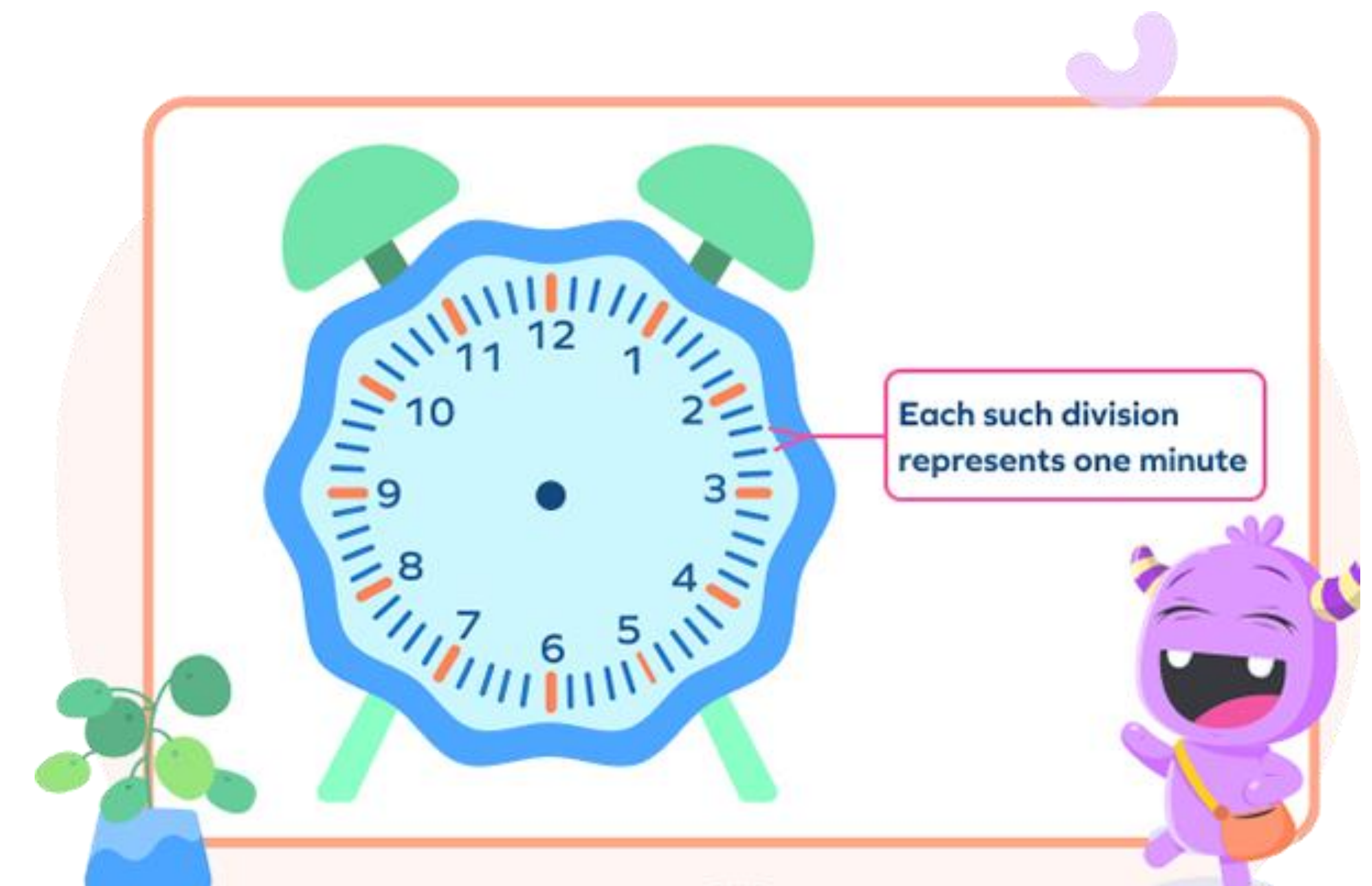
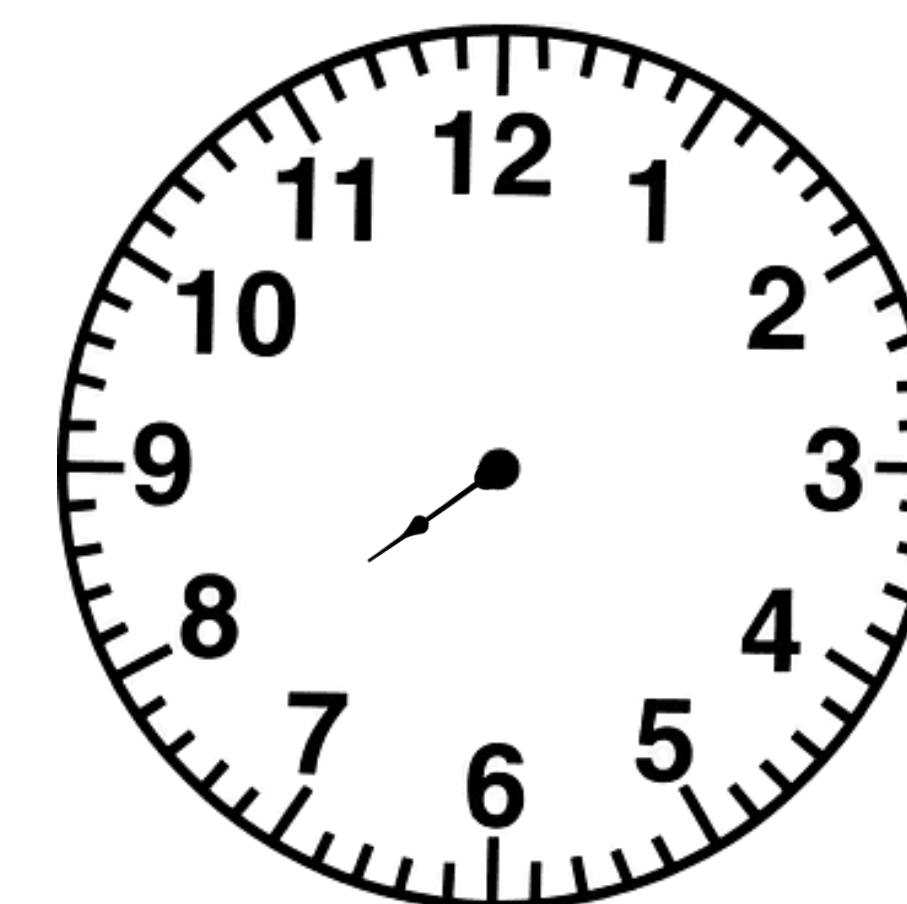# Draw the minute hand and hour hand on the clock

Example 1:   **8:00**

Step 1:

Mark the hour hand first.

Hour = 8

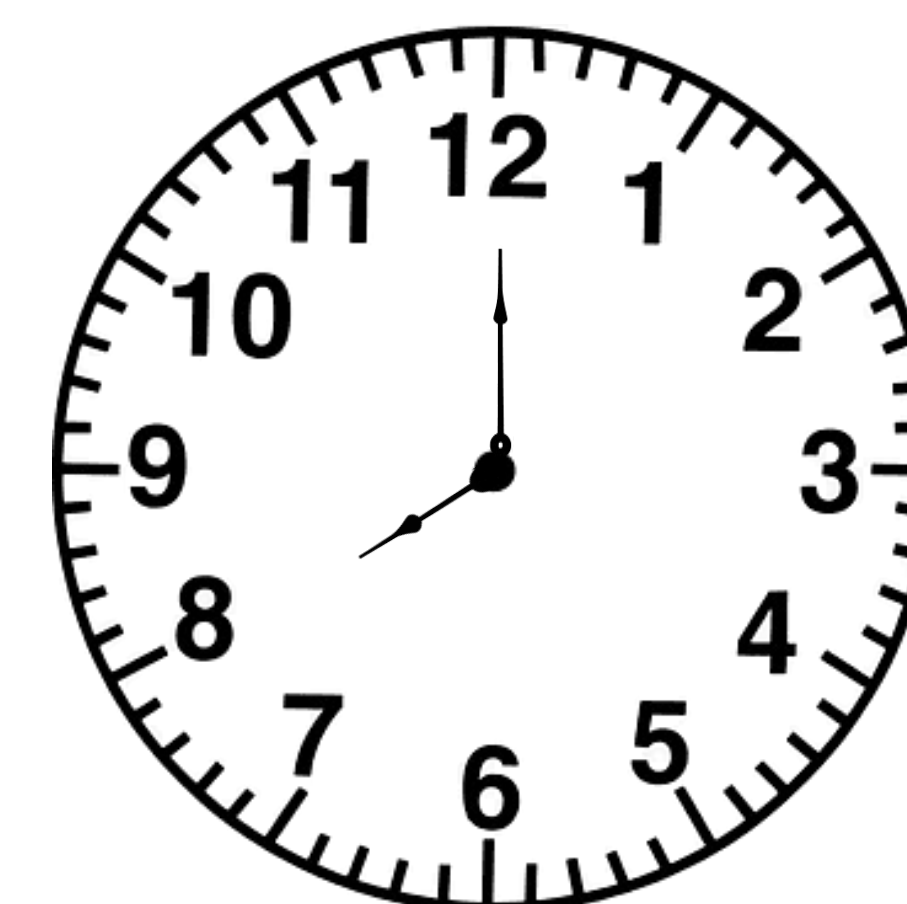Draw the hour hand (shorter hand) towards 8.

Step 2:

Mark the minute hand second.

Minute = 0

Draw the minute hand (longer hand) towards 12.

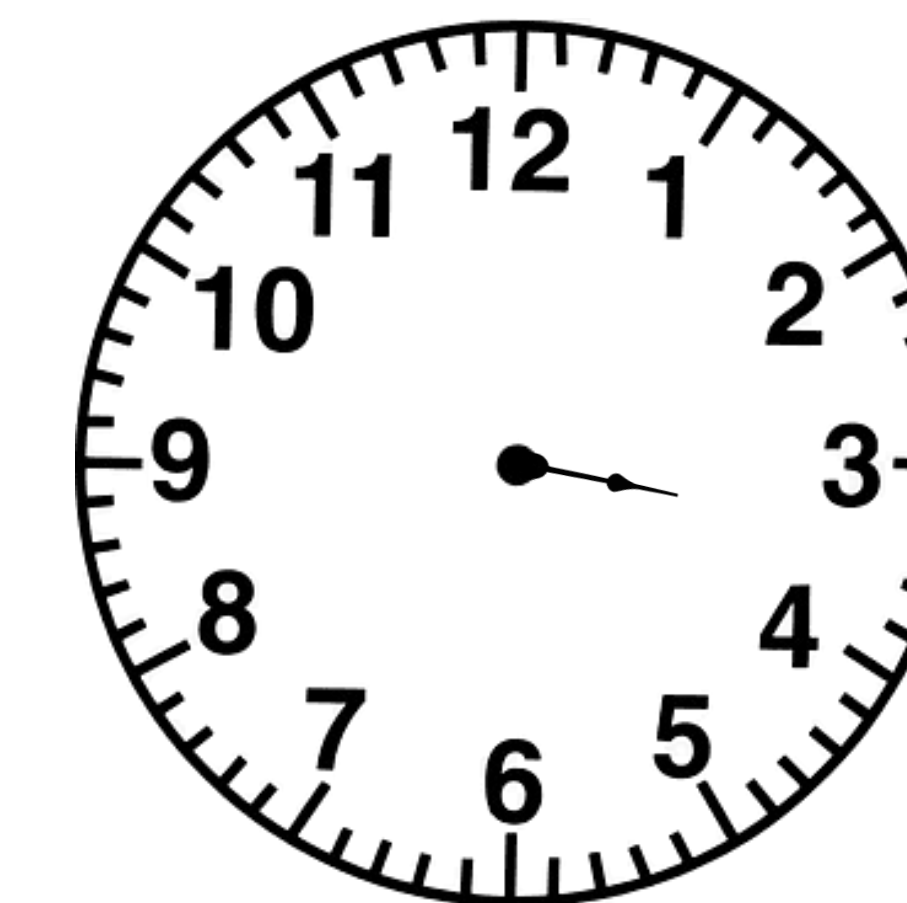**8:00**

Draw the minute hand and hour hand on the clock

Example 2:   3:35

Step 1:

Mark the hour hand first.

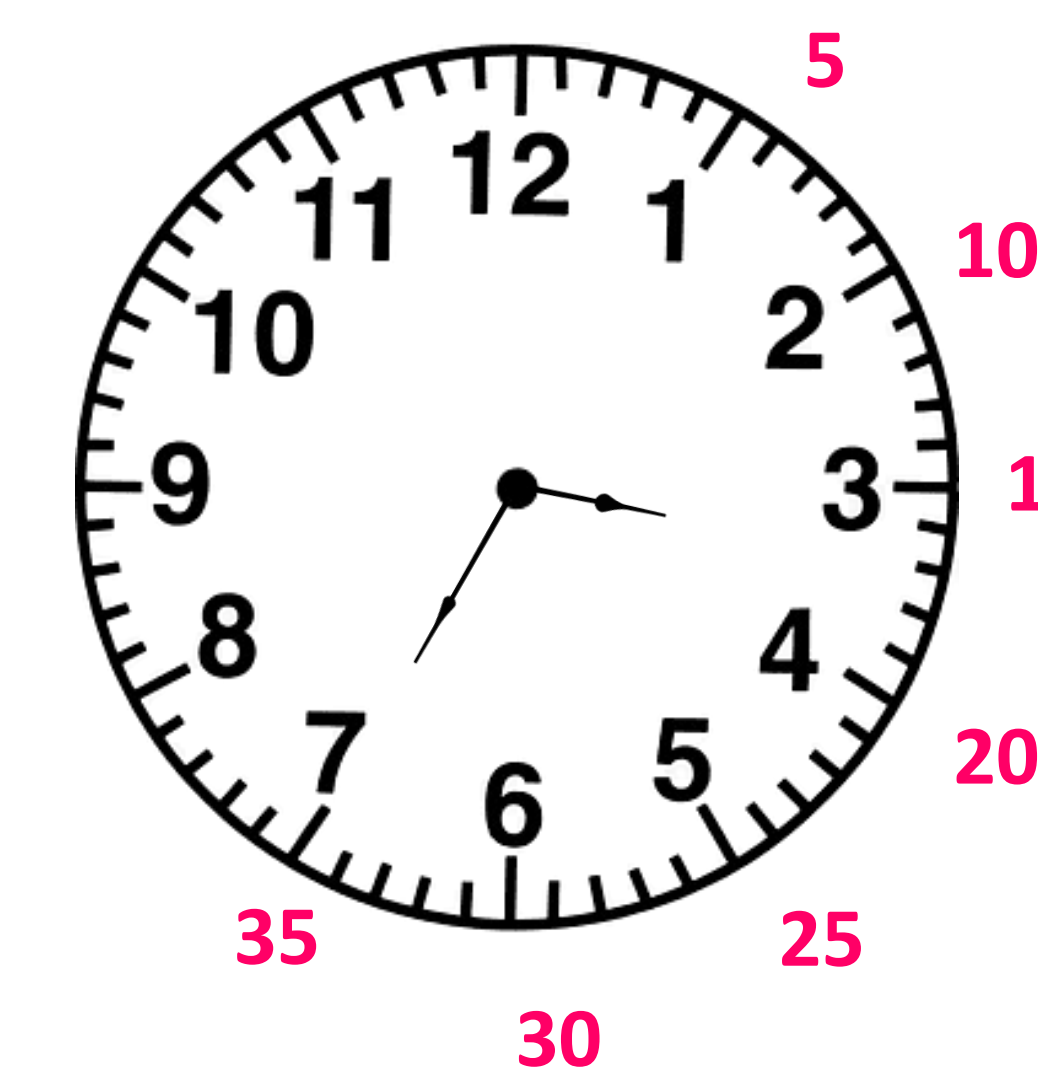**Hour = 3**

Draw the hour hand (shorter hand) between 3 and 4.

Step 2:

Mark the minute hand second.

Minute = 35

Draw the minute hand (longer hand) towards 35ᵗʰ line.
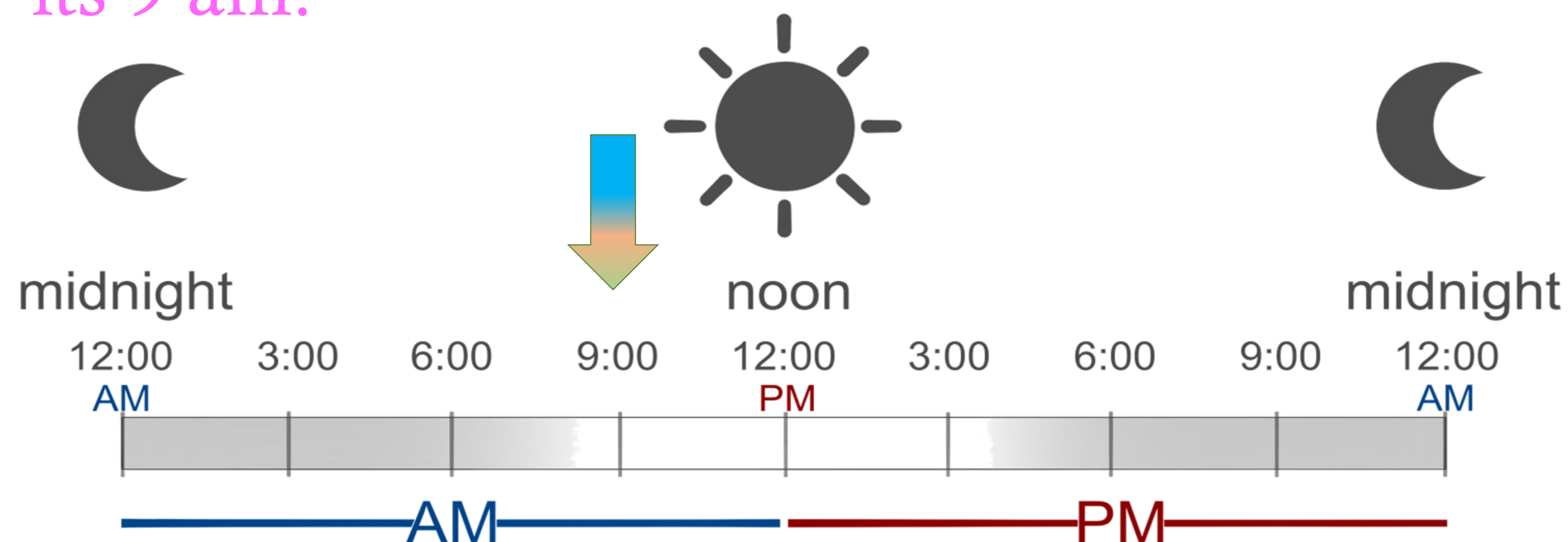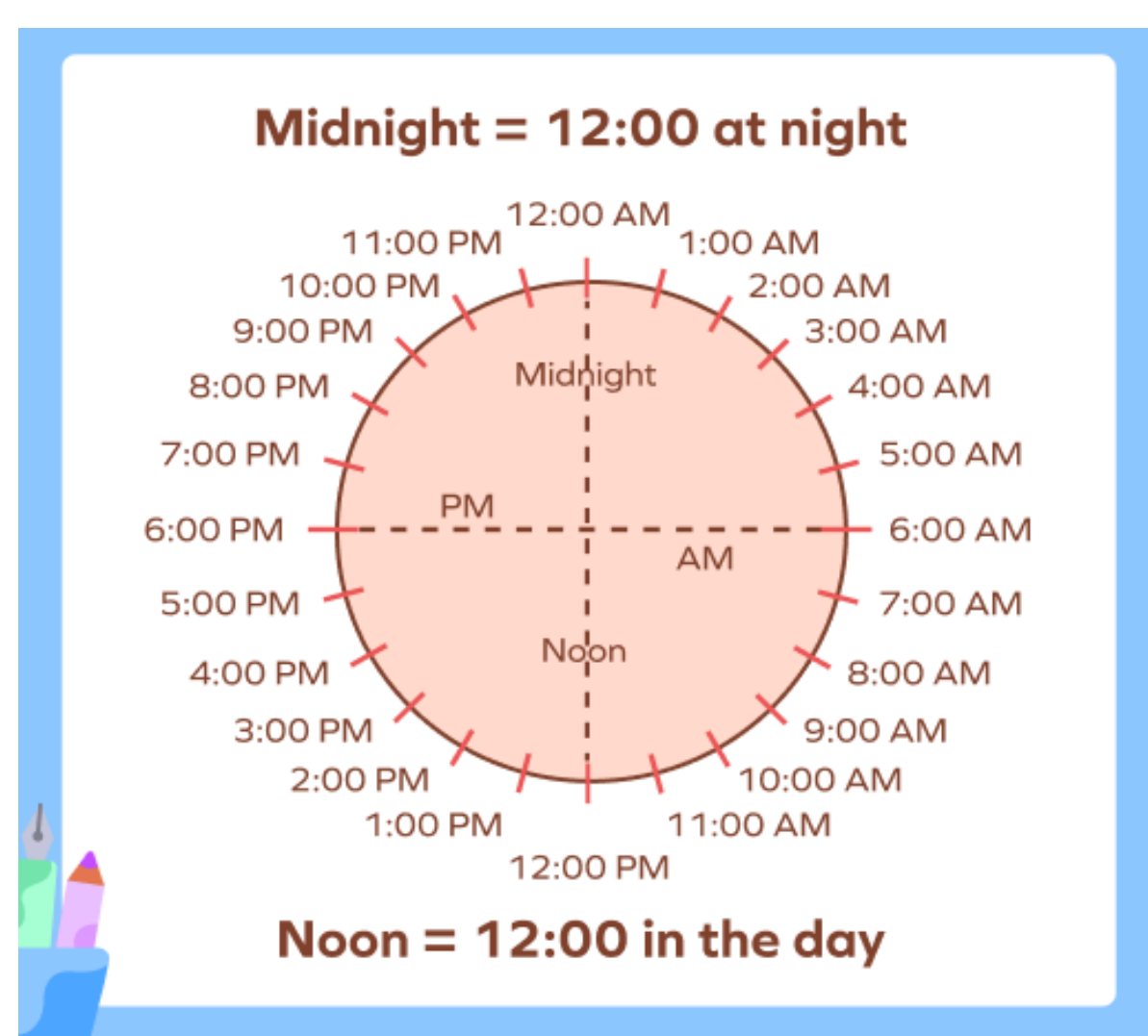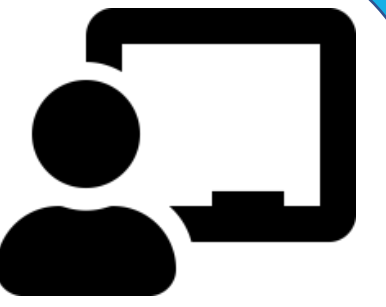
3:35

❖ In a 12 hour clock the 24 hour time is divided into two periods 12 midnight to 12 noon

and then 12 noon to 12 midnight and that's how it covers all the 24 hours.

A.M (Ante Meridiem)
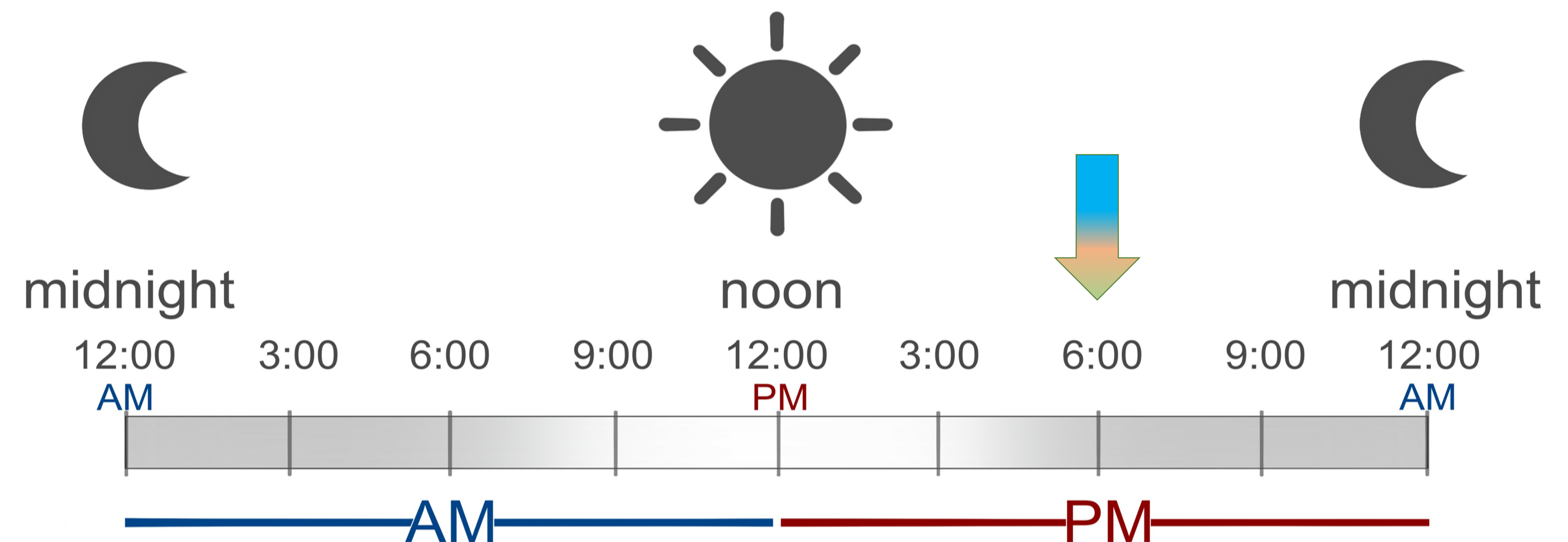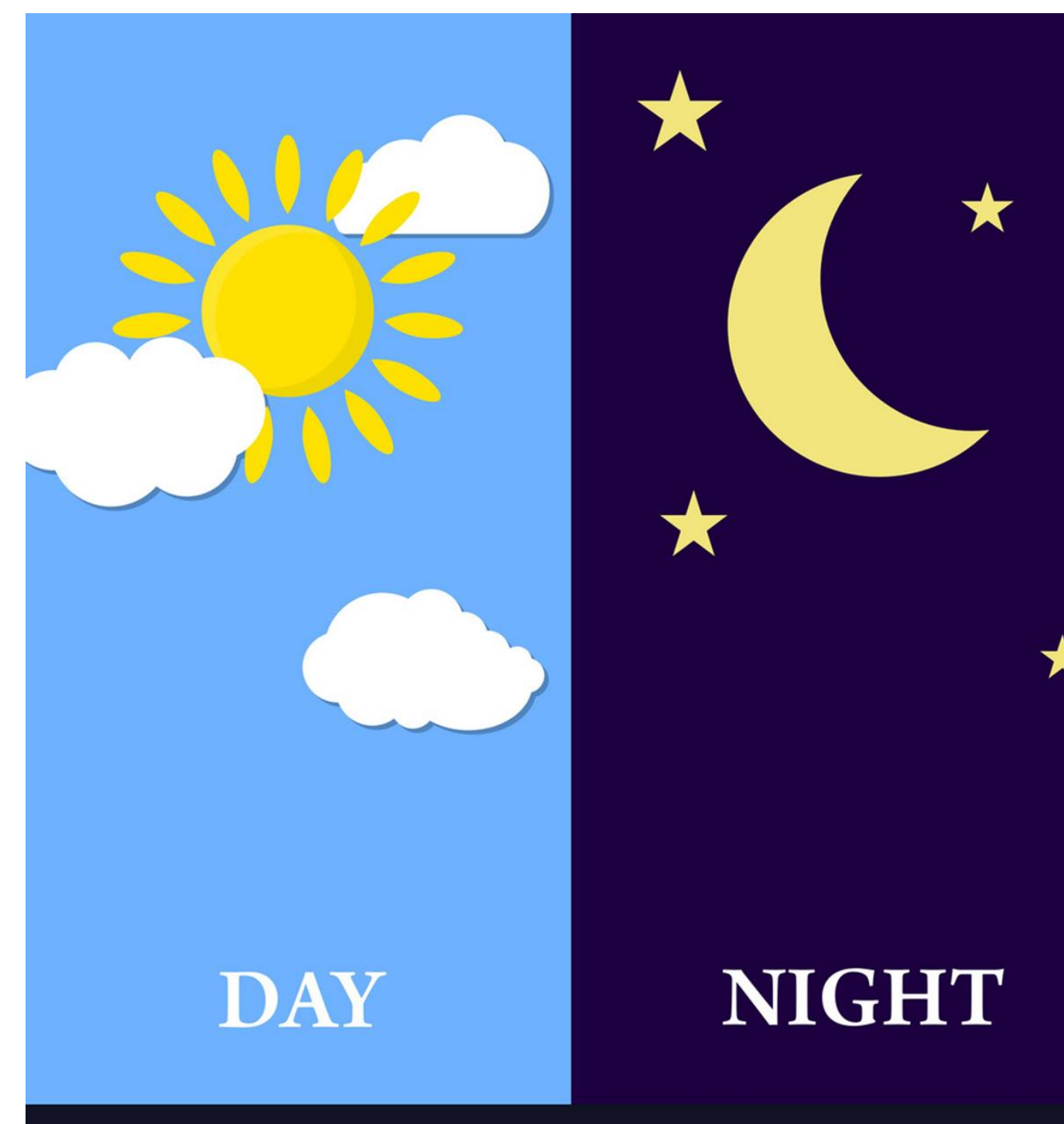
- It stands for Ante Meridiem and it means before midday

- Hence from 12 midnight to 12 noon we use A.M. suffix after the time.

- **For** example we say its 9 am.

Midnight = 12:00 at night

Noon = 12:00 in the day

midnight   noon   midnight

12:00   3:00   6:00   9:00   12:00   3:00   6:00   9:00   12:00

AM   PM   AM

AM   PM

10

P.M(Post Meridiem)

- It stands for Post Meridiem and it means past midday.

- Hence from 12 midday to 12 midnight we use P.M. suffix after time.

- For example we say its 6 pm

DAY | NIGHT

midnight | noon | midnight
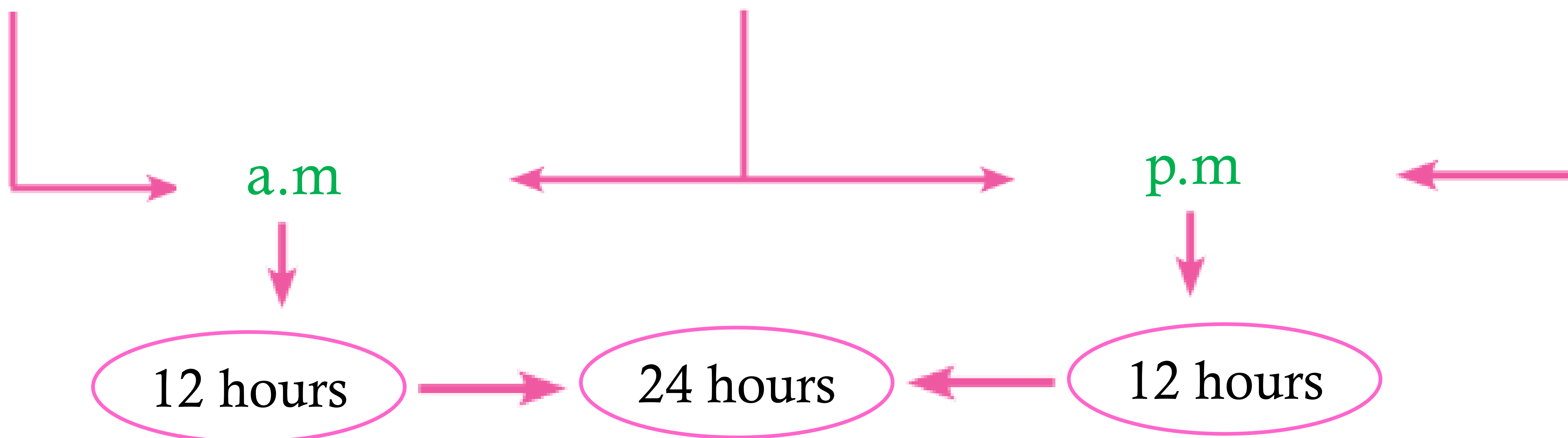12:00 AM | 3:00 | 6:00 | 9:00 | 12:00 PM | 3:00 | 6:00 | 9:00 | 12:00 AM

AM — PM

Using a.m or p.m

Midnight 12' o clock

Noon 12' o clock

Midnight 12' o clock

a.m

p.m

12 hours → 24 hours ← 12 hours

- **Ravi starts to school at 8.45 A.M**.

- **Ramya eats her lunch at 1.00** P.M.

- **Afrin sees the moon at 8:20 P.M**.

- **Kavi goes to bed at 9:00 P.M**.

- **The sun rises at 6:10** A.M.

Addition with time

Follow these steps:

➤ **Add** the **minutes**

➤ **Add** the **hours**

➤ If the **minutes are 60 or more**, **subtract 60 from the minutes** and **add 1 to hours.**

Example 1:

What is 2:45 + 1:10 ?

$$+ \quad \begin{array}{ccc} 2 & : & 4 \ 5 \\ 1 & : & 1 \ 0 \end{array}$$

$$3 \ : \ 5 \ 5$$

$$2:45 + 1:10 = 3:55$$

Example 2: **What is 5:50 + 2:15 ?**

Solution :

Step 1:

$$5 : 5\ 0$$
$$+ \quad 2 : 1\ 5$$
$$\rule{3cm}{0.4pt}$$
$$: \quad 6\ 5$$

50+15 = 65

The minutes are 60 or more, we have to subtract

- subtract 60 from minute(65−60= **5** Minutes)
- and add 1 to Hours (7+1= **8** Hours)

Step 2:

1

$$5 : 5\ 0$$
$$+ \quad 2 : 1\ 5$$
$$\rule{3cm}{0.4pt}$$
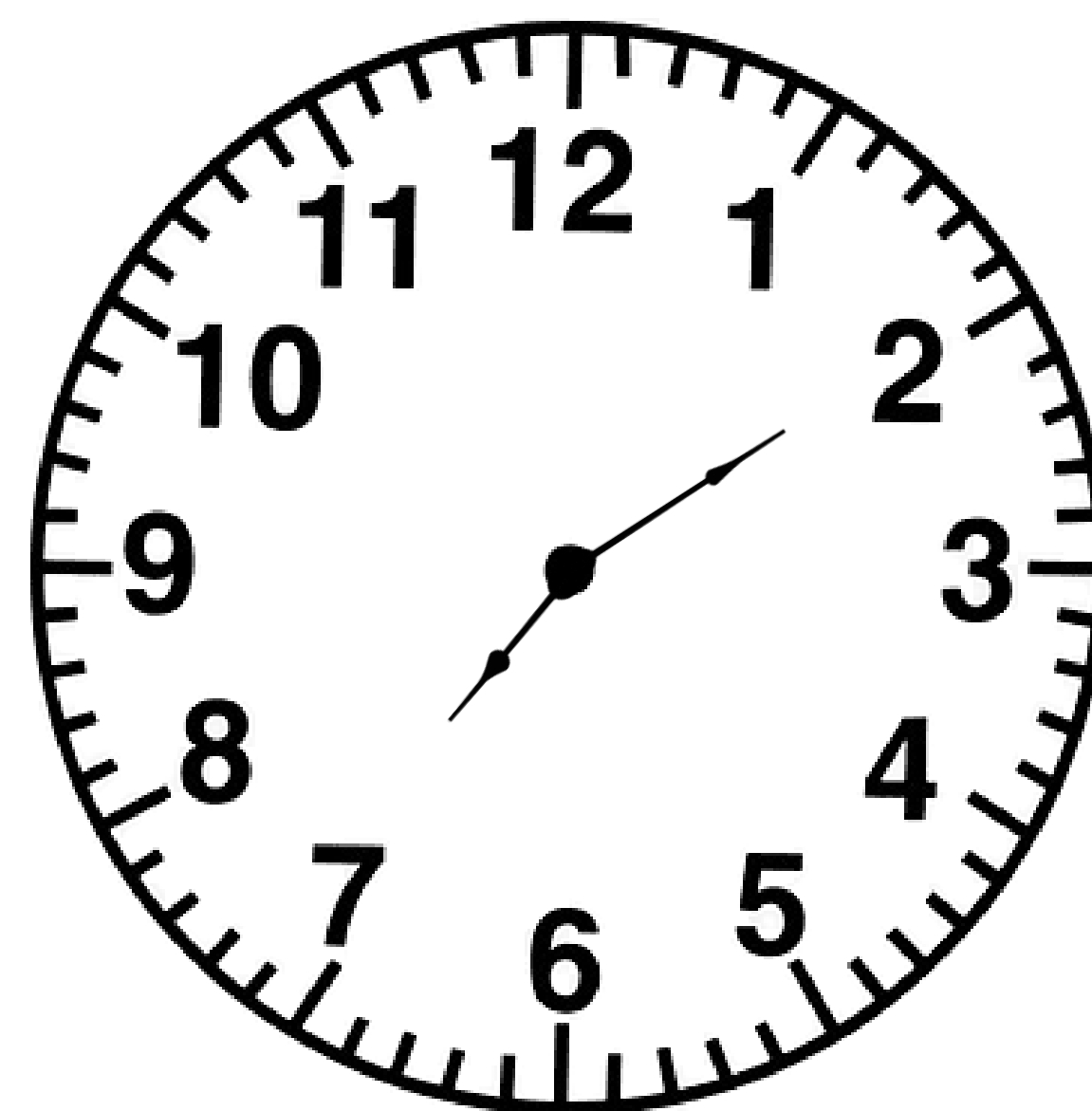$$8 : 0\ 5$$

5:50 + 2:15 = 8:05

Example 3:
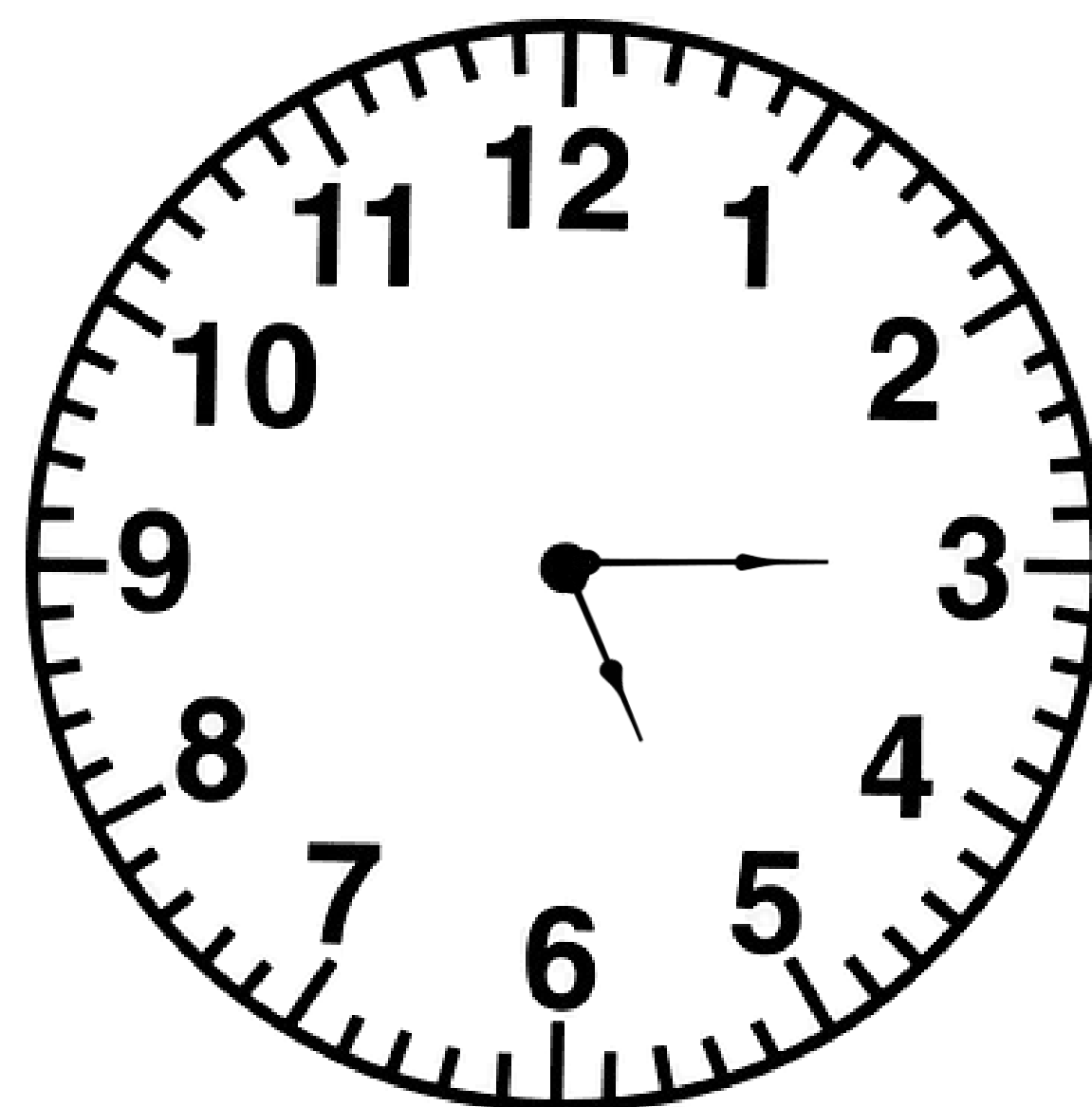
1) What time is it now?   5:15

2) What time will it be in half an hour?

$$\begin{array}{rcccc}
\text{Actual time} & = & 5 & : & 1 \ 5 \\
\text{Adding 30 min} & = & 0 & : & 3 \ 0 \\
\hline
& & 5 & : & 4 \ 5 \\
\hline
\end{array}$$

+

1) What time is it now?   7:10

2) What time will it be in 2 hours ?

Actual time   =   7   :   1   0

Adding 2 hours   =   2   :   0   0

$+$

9   :   1   0
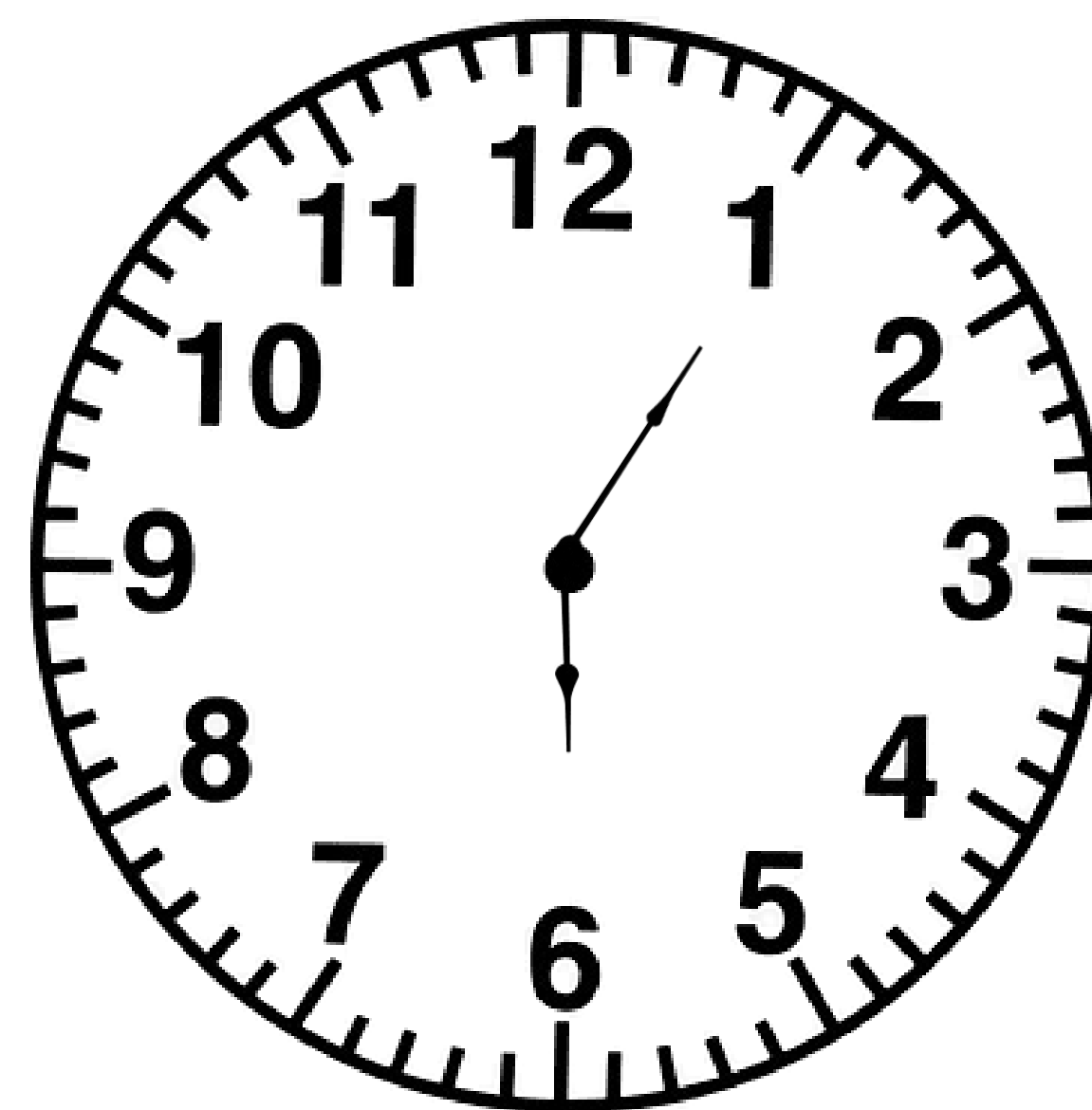
Example 5:

1) What time is it now?   6:05

2) What was the time 5 hours ago?

Actual time	=	6	:	0	5	
Subtract 5 hours	=	5	:	0	0	-
		1	:	0	5	
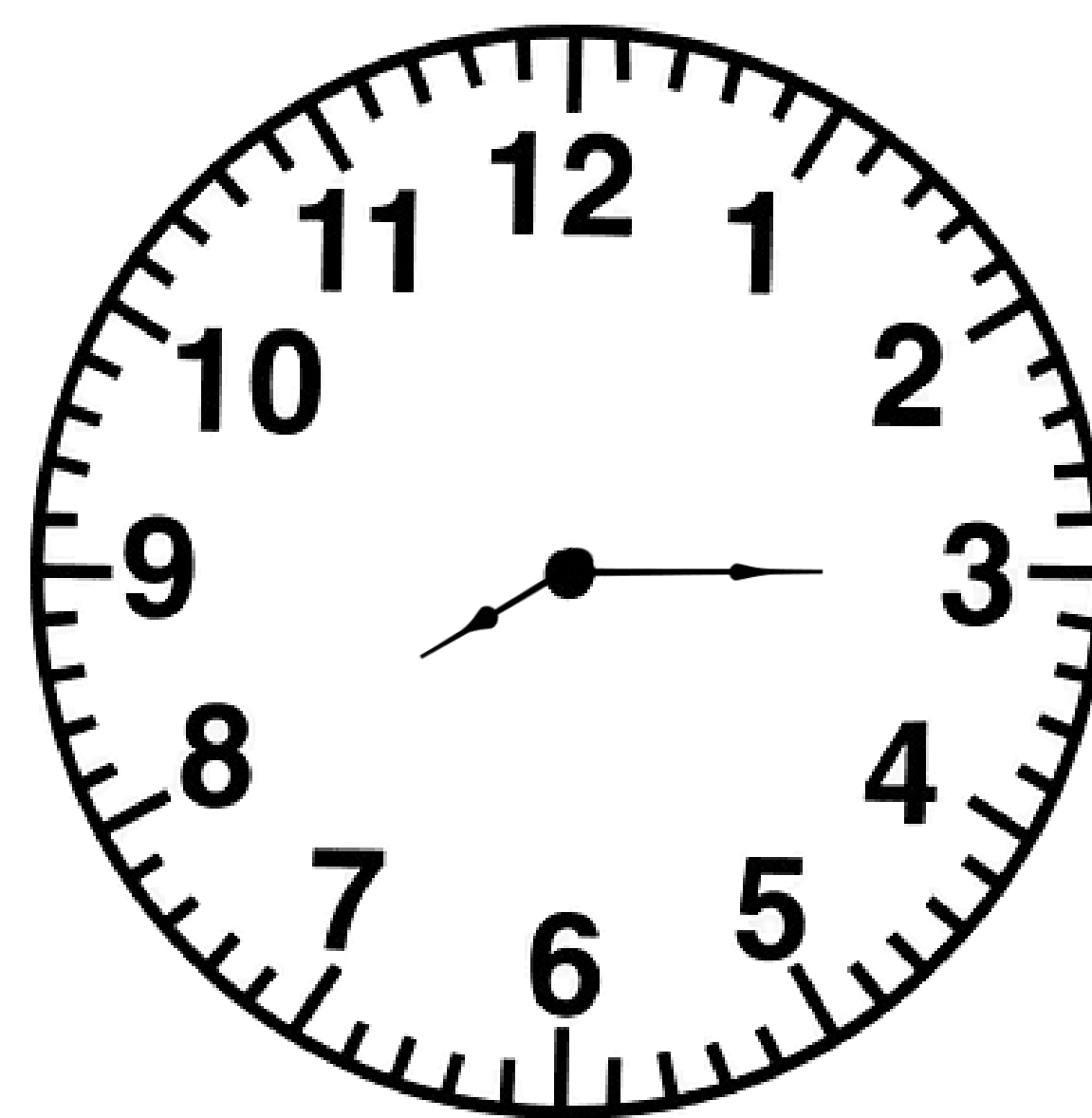
1)   What time is it now?   8:15

2)   What was the time 2 hours and 10 minutes ago?

Actual time   =   8 :   1   5

Subtract 2 hours =   2 :   1   0

                                  —

                            6 :   0   5