

Temperate Zones

- The areas lying **between the Torrid Zone and Frigid Zone** and have moderate temperatures.

- Places east of Greenwich see the sun earlier and gain time (East-Gain-Add).
- Places west of Greenwich see the sun later and lose time (West-Lose-Subtract).

Greenwich Meridian Time (GMT)

Countries through which Prime Meridian passes



TIME ZONE

- A time zone is a **region of the Earth that has adopted the same standard time**, usually referred to as the local time.
- Most adjacent time zones are exactly one hour apart, and by convention compute their local time as an offset from **Greenwich Mean Time (GMT)**.
- Standard time zones** can be defined by geometrically subdividing the Earth's spheroid into 24 lunes (wedge-shaped sections), bordered by meridians each 15° of longitude apart. The local time in neighboring zones is then exactly one hour different.
 - However, political and geographical practicalities can result in irregularly-shaped zones that follow political boundaries or that change their time seasonally (as with daylight saving time), as well as being subject to occasional redefinition as political conditions change.

The **earth rotates 360°** in about 24 hours, which means **15° an hour or 1° in four minutes**.

- The earth has been divided into twenty-four time zones of one hour each (24 hours x 15° rotation = 360° rotation in a day)

Indian Standard Time (IST)

- Time along the **Standard Meridian of India (82°30'E) passing through Mirzapur (in Uttar Pradesh)** is taken as the standard time for the whole country.
- IST at 82°30'E is **5 hours and 30 minutes ahead of GMT**.
 - Indicates 05:30 hours early sunrise in India than the countries taking GMT as a standard time.
- It goes through following states
 - Uttar Pradesh
 - Madhya Pradesh
 - Chhattisgarh
 - Orissa
 - Andhra Pradesh

International Date Line