

Latitude/Longitude Notes

- Polaris = North Star
- Altitude = Angle of an object from the horizontal (horizon)
- Celestial Sphere = the sky above you
- Astrolabe = instrument to measure altitude
- Zenith = point directly overhead (90°)
- Altitude of Polaris = latitude (N) (northern hemisphere)
- Latitude lines run parallel (like the rungs of a ladder)
- Longitude lines run up/down and meet at the poles
- Sun moves 15 degrees per hour due to earth's rotation
- Time zones are 15 degrees apart
- To find longitude take number of hours difference in solar (local) time and multiply by 15
- Prime meridian = 0 degrees longitude
- West (left) of the prime meridian is west longitude
- East (right) of the prime meridian is east longitude
- East and west meet at 180 degrees (international date line)
- Important lines of latitude:
 - Equator 0°
 - Tropic of cancer 23.5°N
 - Tropic of Capricorn 23.5°S
 - Arctic Circle 66.5°N
 - Antarctic Circle 66.5°S
 - North Pole 90°N

○ South Pole

90°S

Evidence of Rotation: Foucault Pendulum

10 am Rochester, new place = 1 pm

New place is 3 hrs east of Rochester

Sun moves 15° per hour so new place is 45° east of Rochester

Longitude of Rochester = 77.5° W (reference table p.3)

Longitude of new place = 32.5° W

12 noon LA, new place 10 am

What is the longitude?