

# Latitude:

Based on the Earth of EQUATOR



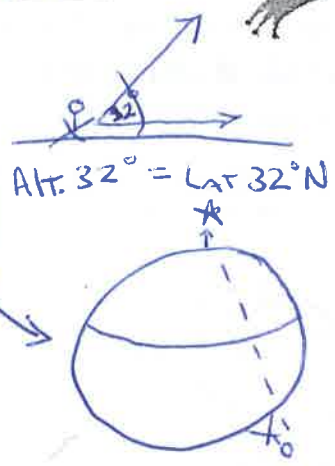
LATITUDE = Altitude of Polaris in N.H



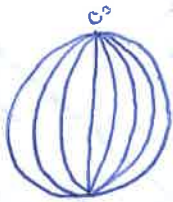
Polaris can only be seen in the Northern Hemisphere!

For each location below, determine the altitude of Polaris:

Location	Altitude of Polaris
25°N, 100°W	25°
30°S, 100°E	30°
80°S, 65°W	80°
45°N, 105°E	45°



# Longitude:



Based on Earth's Prime Meridian → 0°

INTERNATIONAL DATE LINE = 180°

Each hour the Earth rotates 15° →  $\frac{360^\circ}{24 \text{ hrs}} = 15^\circ/\text{hr}$



How many time zones are there? 24 Time zones are spaced 15° apart.

People on the same line of longitude have the same Time.

**Example:** Two students record a difference in local time of two hours. How many degrees of longitude apart are they?

- EACH Time Zone is 15° Apart
- EACH Time Zone is 1 hour Apart

$2 \text{ hrs} = 30^\circ$

$$\begin{array}{r} 15^\circ/\text{hr} \\ \times 2 \text{ hrs} \\ \hline 30^\circ \end{array}$$