

Study Questions - Topic 4

1. Calculate Earth's declination δ for the following dates: January 1, March 22, June 21, and December 31.
2. Calculate the Local Mean Solar Time (LMST) for Montreal if a regular 24h clock shows 14:00 on February 15th, and 08:00 on July 22nd.
3. Calculate the Local Apparent Time (LAT) for the same location and times.
4. Calculate the solar altitude angle β for the same location and those two times.
5. Calculate the extraterrestrial short-wave irradiance K_{Ex} for the same location and those two times.