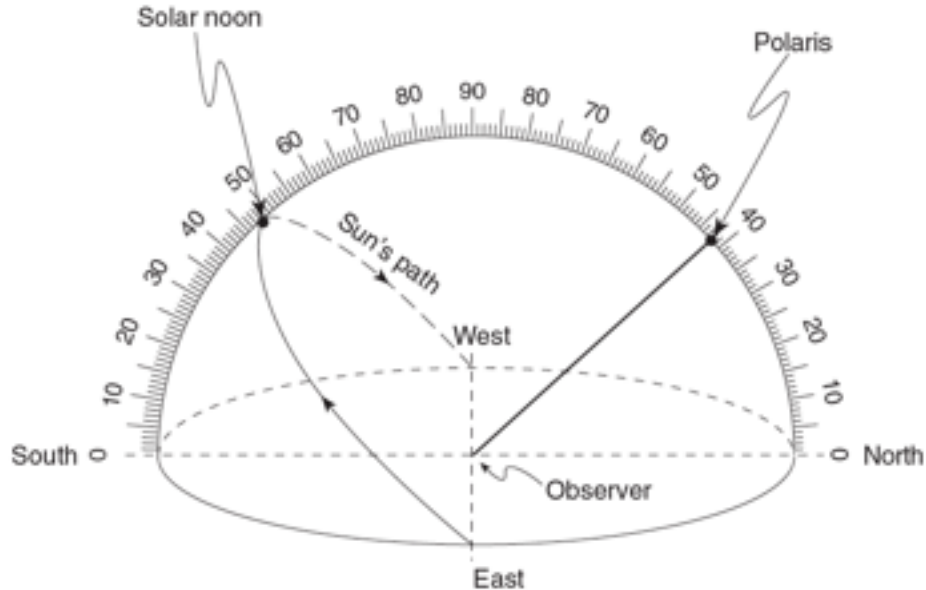


Sun's Path and Altitude of Polaris

1. What season is shown in the diagram above? _____
2. What is the altitude of the noon sun? _____
3. What direction would the noon shadow of the observer point? _____
4. What is the altitude of Polaris? _____
5. Name a city in NYS that would see Polaris at this altitude? _____
6. What would the altitude of the noon sun be in Summer? _____
7. What is the zenith? _____
8. Does the noon sun ever reach the zenith in NYS? _____
9. Explain why the zenith is never reached in NYS.

10. What happens to the length of the shadow from sunrise to noon? _____
11. What happens to the length of the shadow from noon to sunset? _____
12. What season has the longest noon shadow? _____
13. What season has the greatest angle of insolation? _____
14. What season has the shortest noon shadow? _____
15. What season has the lowest angle of insolation? _____