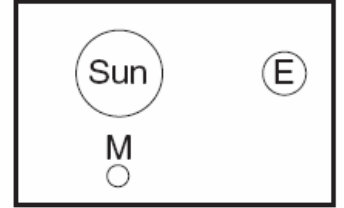
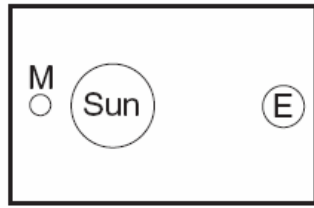
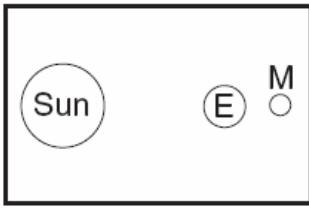


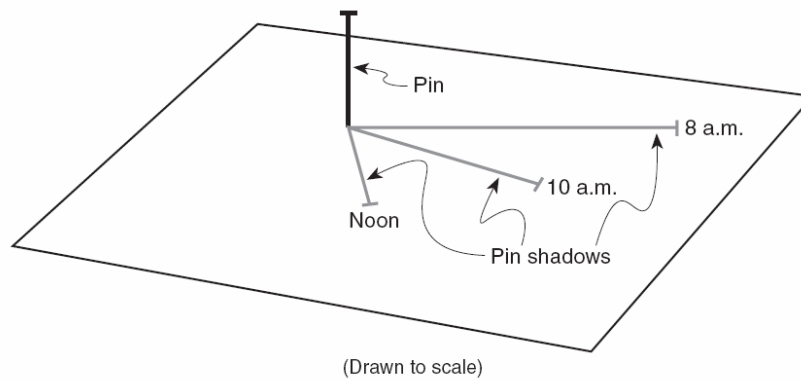
Astronomy Review

Use the following four pictures to answer questions 1-4.



1. Put an X through the pictures that are NOT possible.
2. Circle the picture that could be a lunar eclipse.
3. Triangle the picture that could be a solar eclipse.
4. Why does a solar or lunar eclipse NOT happen every month?

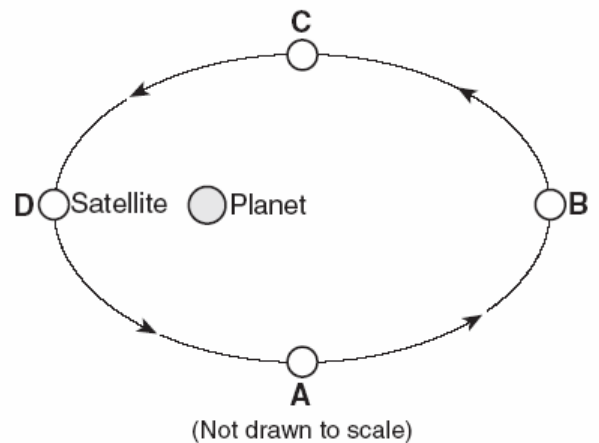
Use the picture below to answer questions 5-7.



5. Why does the shadow change its length?
6. Draw in the shadow for 11 am.
7. Draw the shadow for 2 pm.

Use the following picture to answer questions 8-12.

8. Which location is the satellite traveling the fastest?
9. Why is the satellite moving fastest there?
10. If the planet was the Earth, name that satellite.
11. How long will it take that satellite to revolve around the Earth?
12. Name the shape the satellite makes around the planet.



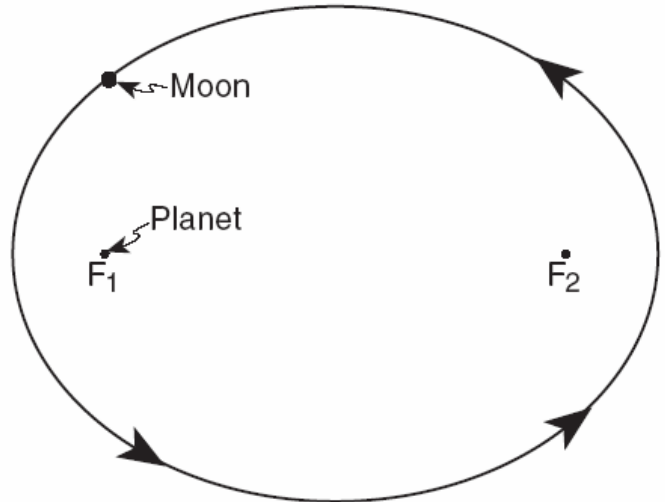
Use the picture below to answer questions 13-14.

13. What is the eccentricity of the following ellipse? (*Round to the thousandths*)

Formula

Substitute

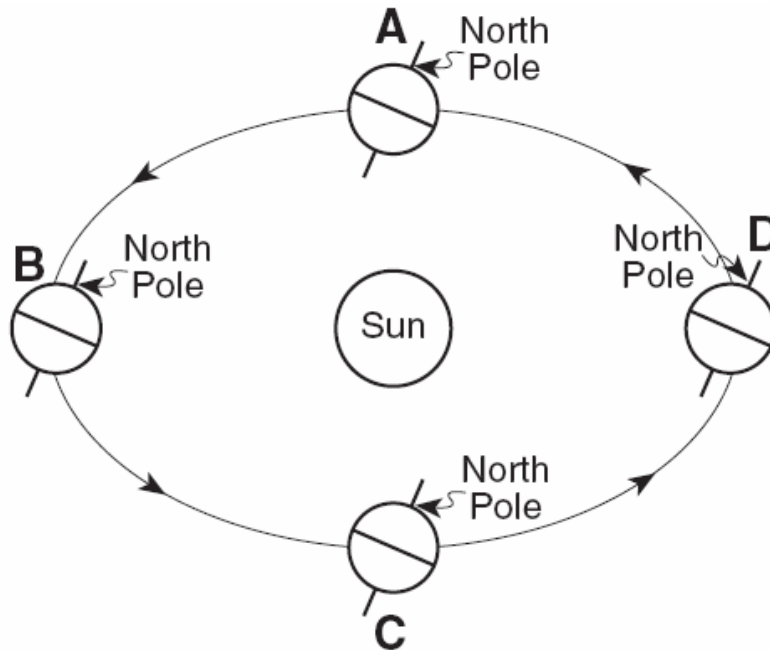
Solve



(Drawn to scale)

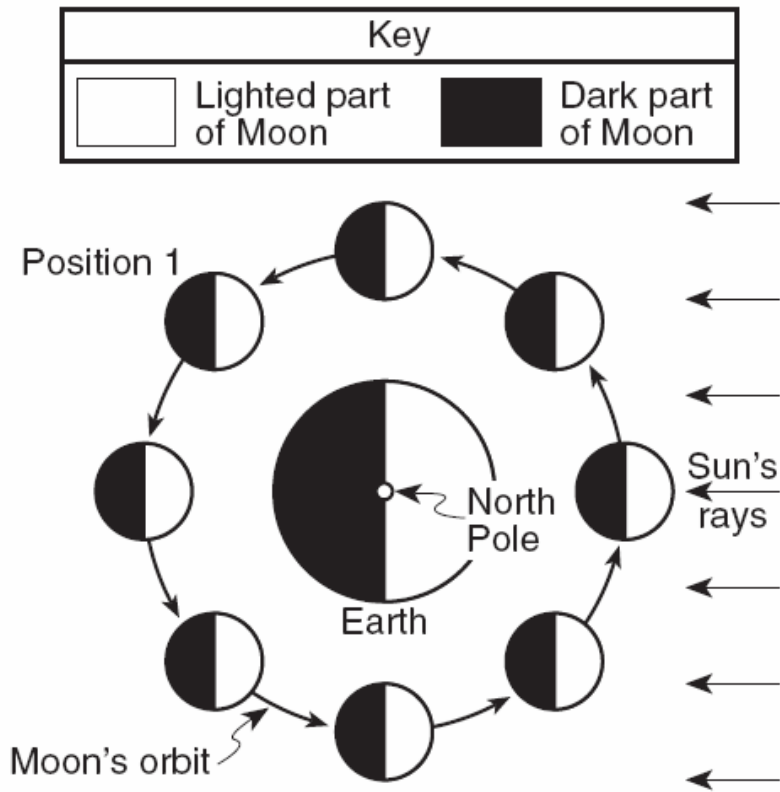
14. How does the eccentricity of this diagram compare to all of the planets in our solar system.

Use the picture below to answer questions 15-22.



15. Which position is the summer season in the northern hemisphere?
16. Shade the night portion of position B and position D in the diagram.
17. Describe what happens to the orbital velocity as the planet moves from C to A.
18. Which latitude receives the direct rays of the sun in position D?
19. Which latitude receives the direct rays of the sun in position B?
20. Which latitude receives the direct rays of the sun in positions A and C?
21. Which position gives NY the longest amount of daylight hours?
22. What is the date for position D?

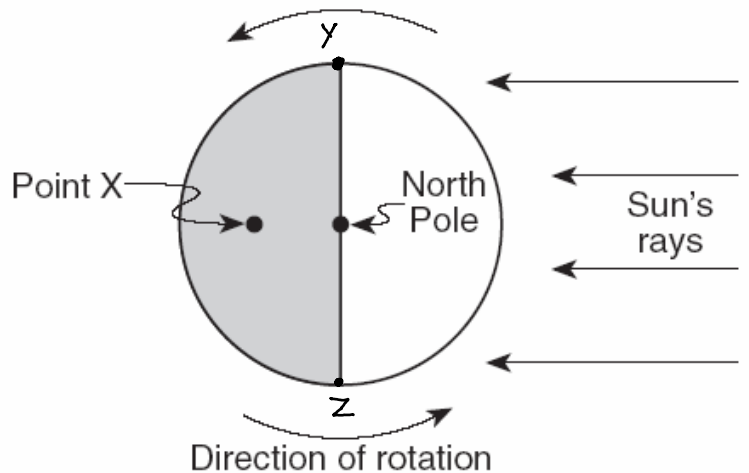
Use the diagram below to answer questions 23-30.



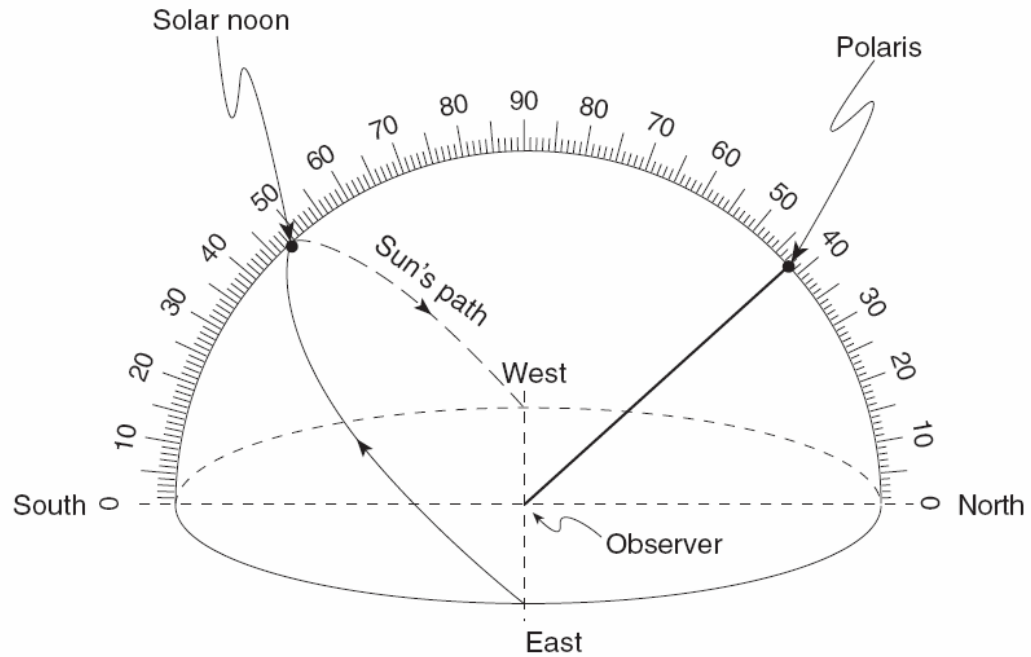
23. Label the position of the new moon with an N.
24. Label the position of the full moon with an F.
25. Label the third quarter moon with a 3.
26. Put a square around the solar eclipse moon picture.
27. Put a triangle around the lunar eclipse moon picture.
28. What happens to the lit portion of the moon we see from position N to position F?

Use the picture to the right to answer questions 29-33.

29. What time is it at point X?
30. What time is it at point Y?
31. What time is it at Z?
32. What two days of the year could this picture have been taken?
33. The motion in this diagram causes wind and ocean currents to curve. What is the name of that force and which way do they curve in the Northern Hemisphere?



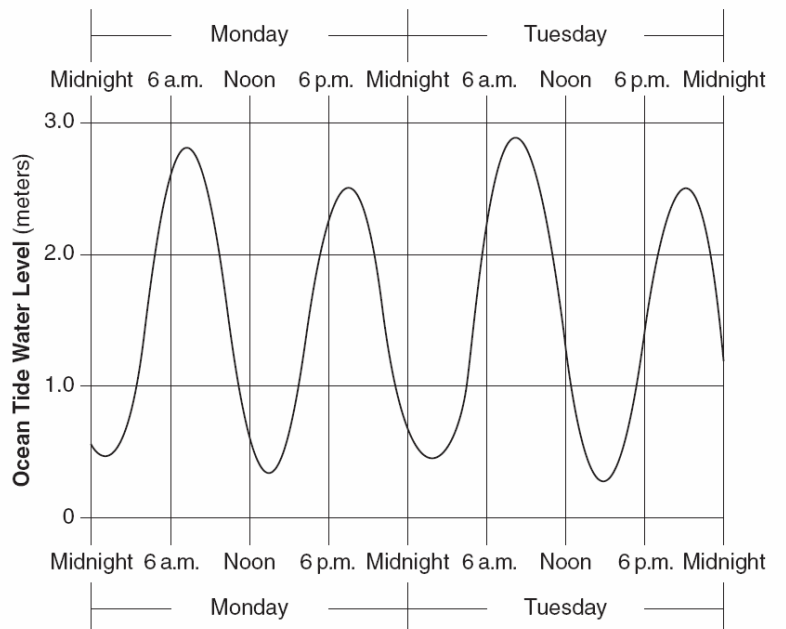
Use the picture below to answer questions 34-38.



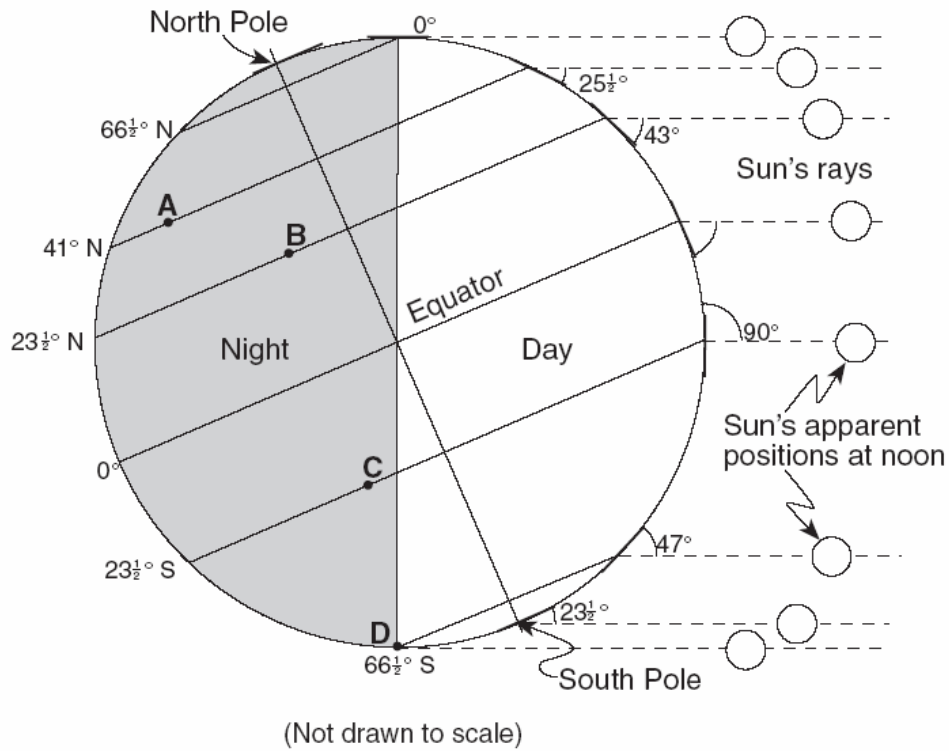
34. Which city in NYS is this location probably located?
35. What are the two possible dates this picture could be on?
36. Draw the sun's path on June 21<sup>st</sup> reaching an altitude of 73°.
37. Label the zenith point.
38. What happens to the altitude of Polaris as you travel from New York to the North Pole?

Use the picture below to answer questions 39-41.

39. What causes the tides to rise and fall on a daily basis?
40. What time and day should the next LOW tide occur?
41. What should the Ocean Tide Water level be on the next HIGH tide?

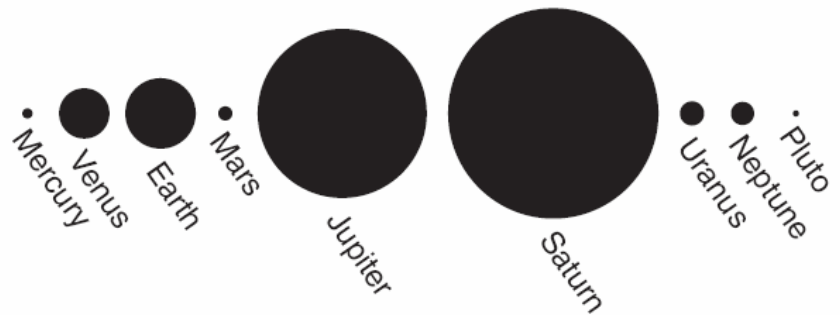


Use the diagram below to answer questions 42-46.



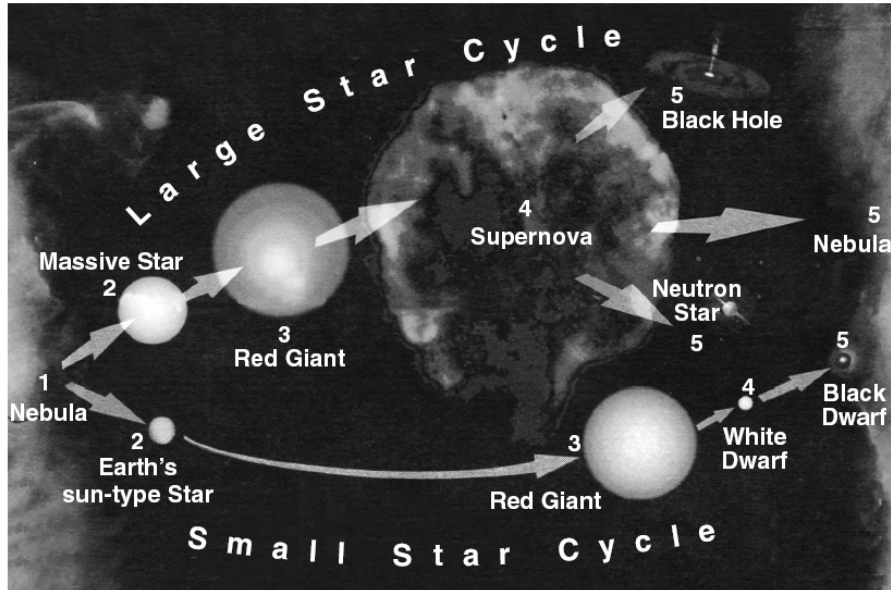
42. What is the date of this picture?
43. What letter is receiving the direct rays of the sun on this date?
44. Which letter could be in New York State?
45. How many hours of sunlight does the South Pole receive on this date?
46. What happens to the amount of daylight hours as you travel from point C to point A?
47. Name at least two things wrong with this picture.

- 
- 



Use the following picture to answer questions 48-50.

The Life Cycles of Stars

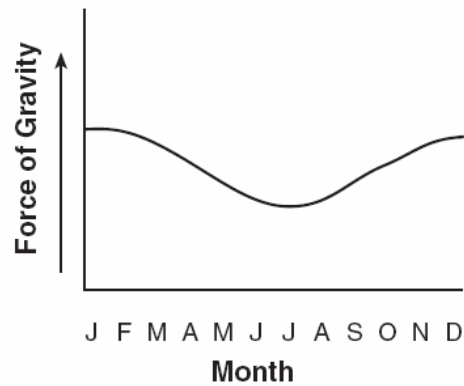


48. Describe the star cycle of a star like the Earth's sun?

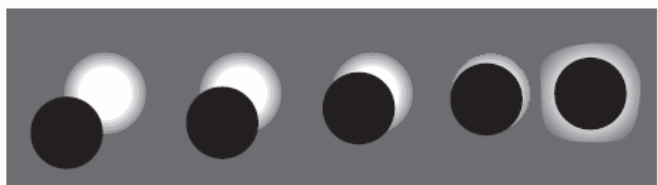
49. What do stars like the Earth's Sun originate from?



50. What could happen to a massive star?

51. How can you determine from the graph that  
That the Earth is farthest away during our summer?

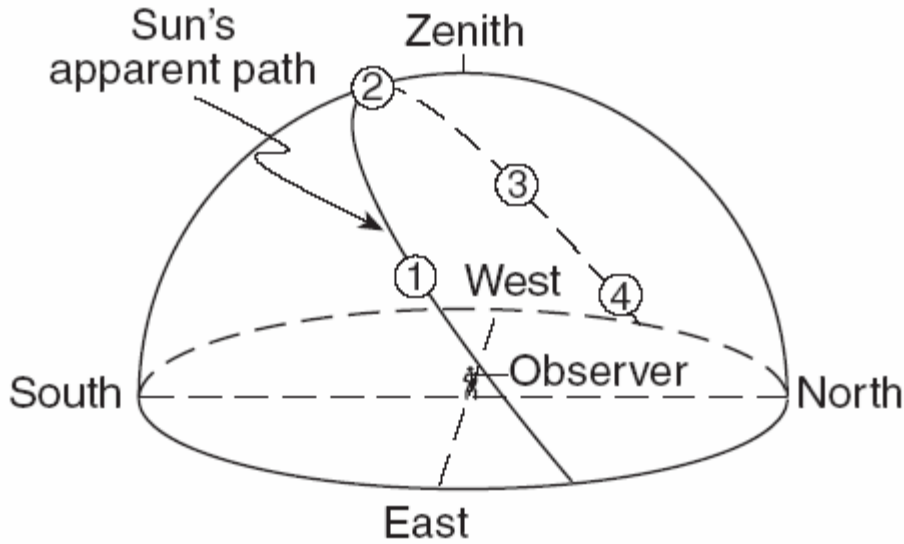


52. What is happening in this picture?



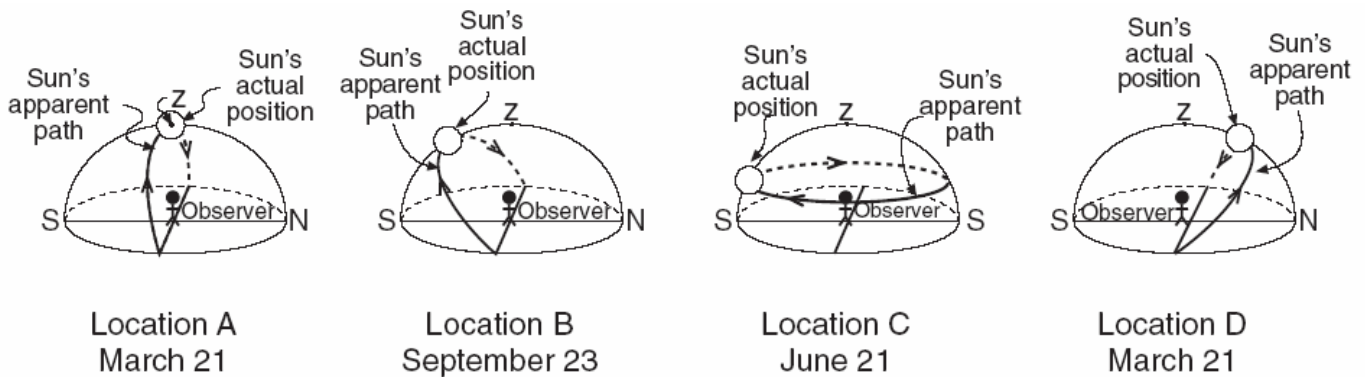
Key	
	Moon
	Sun

Use the following diagram to answer questions 53-56.



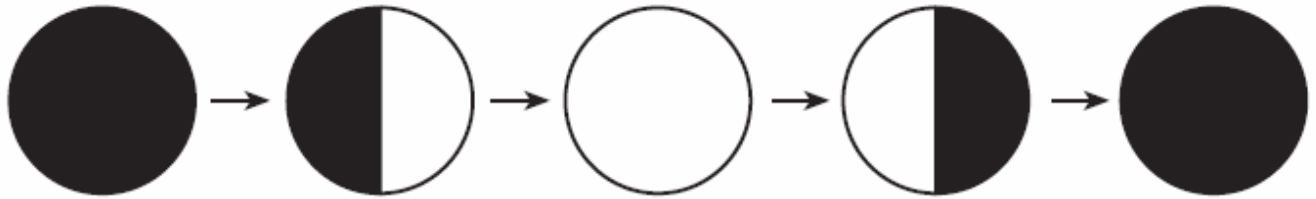
53. What is the date of this diagram?
54. Which number represents the time of day with the shortest shadow?
55. Which number represents the time of day with the longest shadow?
56. If this location was in New York State, label the approximate position of Polaris.

Use the following picture to answer questions 57-60.

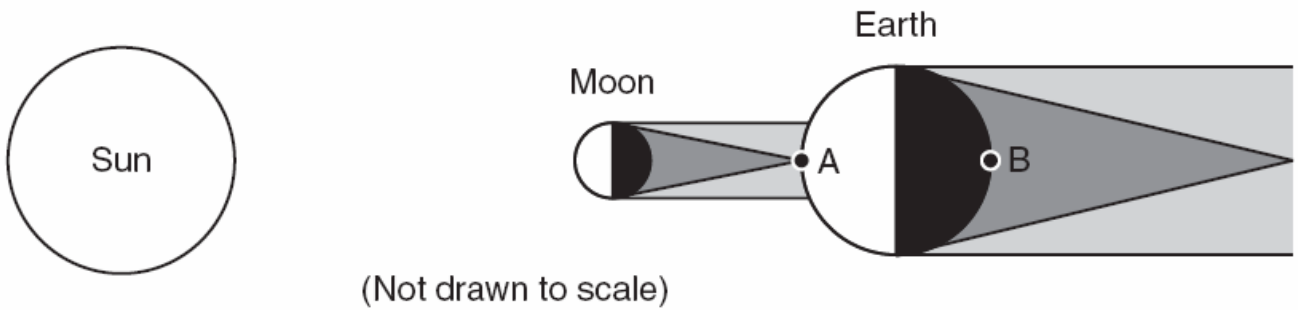


57. Which location could be in New York? \_\_\_\_\_ because..
58. Which location is in the Southern hemisphere? \_\_\_\_\_ because..
59. Which location is at the North Pole? \_\_\_\_\_ because..
60. Which location is at the Equator? \_\_\_\_\_ because..

61. Label the moon phases in the diagram.

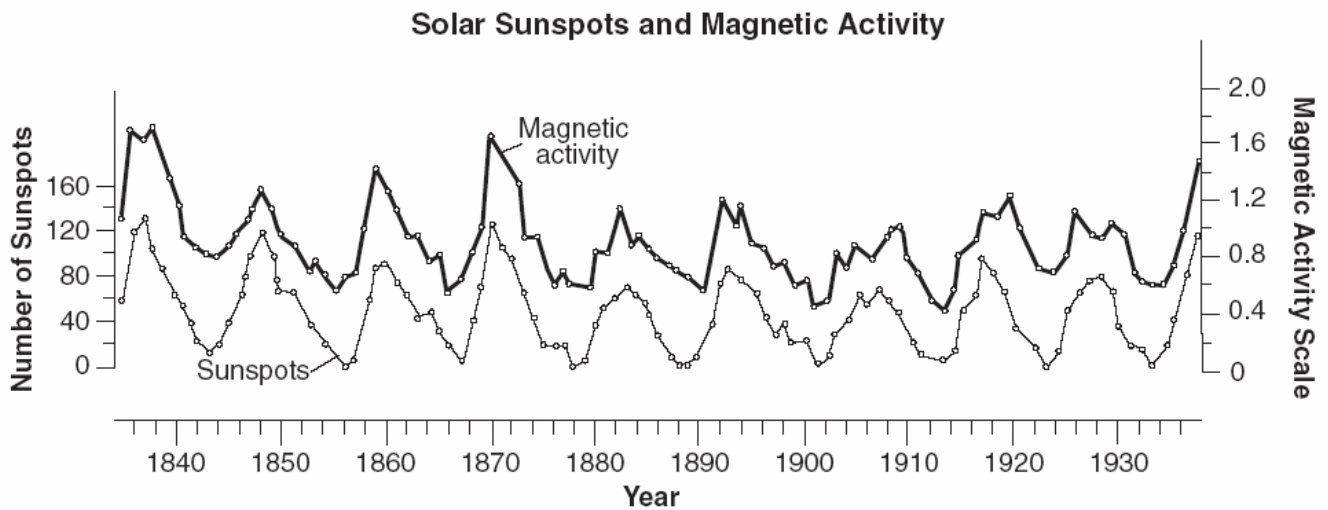


Use the following diagram to answer questions 62-64.



- 62. What time is it at location B?
- 63. What is location A experiencing?
- 64. What phase of the moon is shown in the diagram?

Use the following diagram to answer questions 65-66.



- 65. What is the relationship between sunspots and magnetic activity?
- 66. Describe this graph.