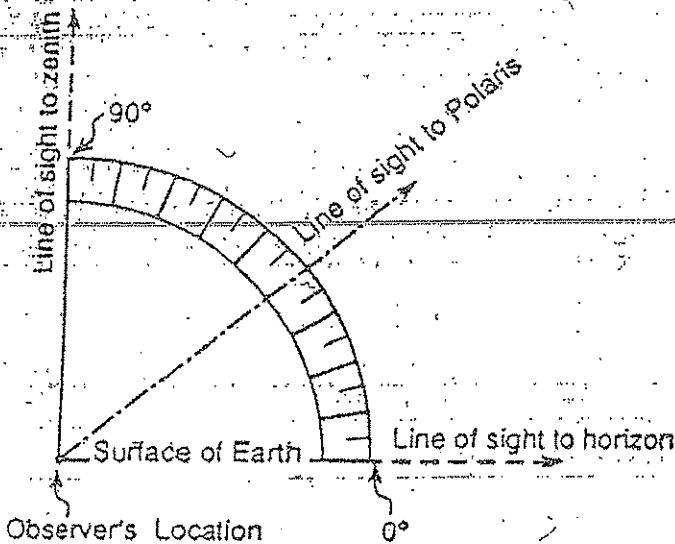


Polaris Practice Problems

1. As a person travels northward from the Equator, the altitude of Polaris will appear to
- 1 decrease
 - 2 increase
 - 3 remain the same

2. The diagram below shows the altitude of Polaris above the horizon at a certain location.



What is the latitude of the observer?

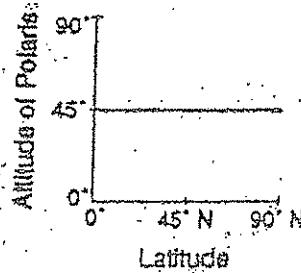
- (1) 10° N
- (2) 40° N
- (3) 50° N
- (4) 90° N

3. As a person travels due west across New York State, the altitude of Polaris will
- 1 decrease
 - 2 increase
 - 3 remain the same

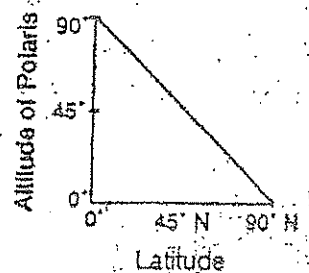
4. To an observer on a ship at sea, at which latitude does the North Star appear closest to the horizon?

- (1) 5° N
- (2) 20° N
- (3) 50° N
- (4) 85° N

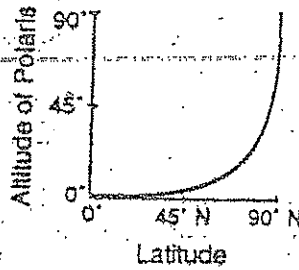
5. Which graph best represents the relationship between the latitude of an observer and the observed altitude of Polaris above the northern horizon?



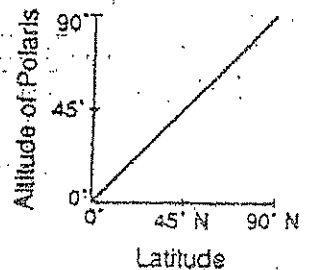
(1)



(3)



(2)



(4)

6. An observer on a moving ship notices that the altitude of Polaris increases each night. Local solar noon occurs at the same time each day. In what direction is the ship moving?

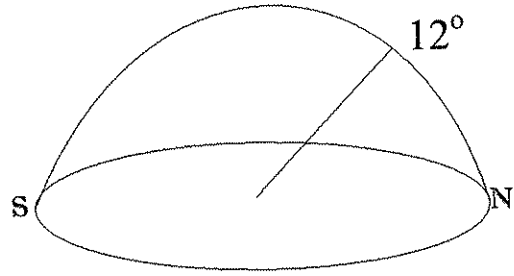
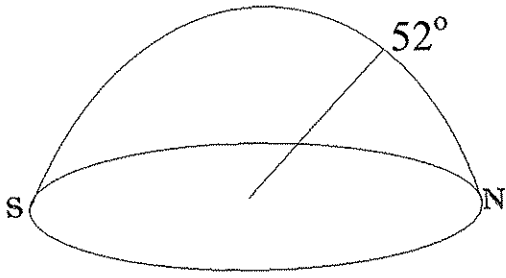
- 1 due east
- 2 due south
- 3 due west
- 4 due north

7. At what latitude would an observer on the Earth find the altitude of Polaris to be 37°?

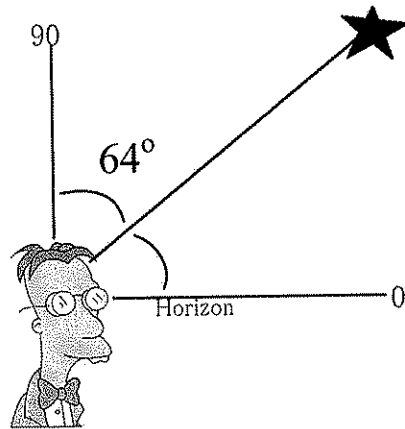
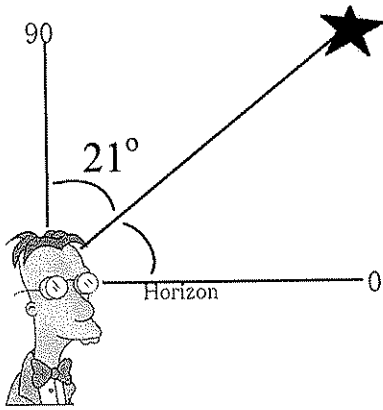
- (1) 37° South
- (2) 53° North
- (3) 37° North
- (4) 90° North

8. At which latitude will Polaris be overhead?

- (1) 0°
- (2) 23 1/2° N.
- (3) 90° S.
- (4) 90° N.



1. State the latitude of the observer: _____ 2. State the latitude of the observer: _____



3. State the latitude of Professor Frink: _____ 4. State the latitude of Professor Frink: _____

Directions:

- Use the ESRT page 3
- What is the altitude of Polaris as seen from the following locations in New York State?

5. Slide Mt: _____

6. Buffalo: _____

7. Mt. Marcy: _____

8. Oswego: _____

9. If an observer view Polaris at 41 degrees, what town would they be located in?
