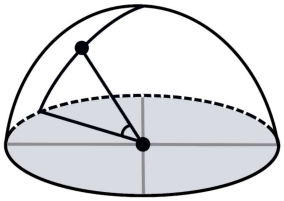
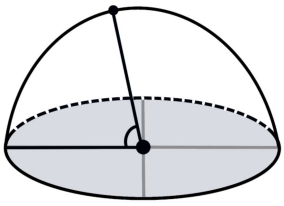
AZIMUTH & ALTITUDE PRACTICE

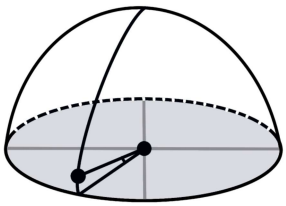
Estimate the azimuth and altitude for each of the following eight diagrams. Only use measurements (a protractor) where necessary:



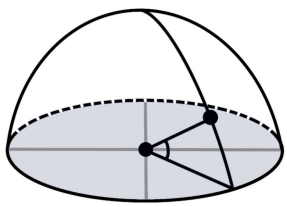
AZIMUTH: 130°
ALTITUDE: 50°



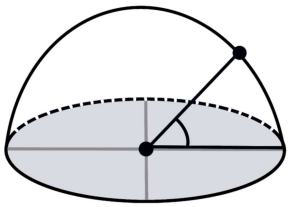
AZIMUTH: 90°
ALTITUDE: 70°



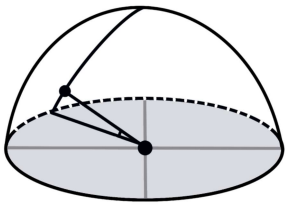
AZIMUTH: 125°
ALTITUDE: 10°



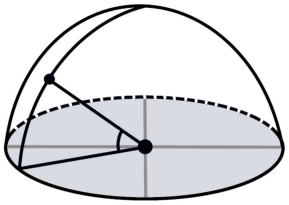
AZIMUTH: 230°
ALTITUDE: 35°



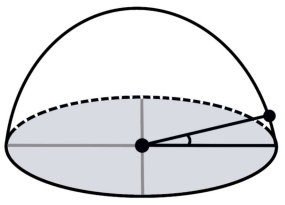
AZIMUTH: 0°
ALTITUDE: 45°



AZIMUTH: 310°
ALTITUDE: 20°

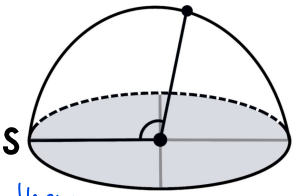


AZIMUTH: 245°
ALTITUDE: 40°



AZIMUTH: 180°
ALTITUDE: 14°

Explain WHAT is wrong with this diagram and WHY that is wrong.



The star is behind the observer (altitude would be about 100°)

They should just turn so they are facing the star, making the altitude about 80°

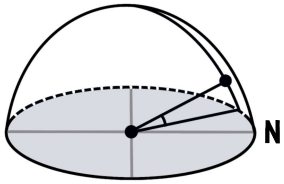
If a star is at the zenith, explain why no azimuth is needed.

Because its directly overhead, its not really in any direction

Why can we only estimate the altitude for most of our diagrams?

Because we cannot accurately represent a 3D scenario on a 2D diagram; the angles are inaccurate

A student comes up with the following answer given this diagram. What did they do wrong? (Don't just state the correct answer; explain their mistake!)



AZIMUTH: ~~25°~~ 335°
ALTITUDE: 15°

They went counter-clockwise with the azimuth instead of clockwise. It should be 335°