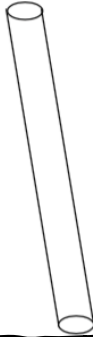


A poll tilts towards the sun at an 8° angle from the vertical at it casts a 22-ft shadow. The angle of elevation from the shadow to the top of the pole is 43° . How tall is the poll?



The angles of elevation of a balloon from the two points on level ground are 24° and 47° respectively. If the points are 8.4 miles apart and the balloon is between the points, in the same vertical plane, approximate, to the nearest tenth of a mile, the height of the balloon above the ground.

From one corner of a triangular plot of land, a surveyor determines the directions to the two other corners to be $N32^\circ E$ to point A and $S76^\circ E$ to point B. What is the measure of the angle formed by the edges of the plot of land at the corner where the surveyor is standing? If the distance from the surveyor to point A is 150 ft and the distance from the surveyor to point B 210 ft, how far apart are point A and B and what is the area of the plot of land?

Given $f(x)$, find $f'(x)$

$$f(x) = -2x^2 + 3x - 1$$

$$f(x) = \frac{4}{x}$$

$$f(x) = \sqrt{2x - 1}$$