

AP Precalculus Unit 3 Wkst D: More Practice

Name: _____ Per: _____

1. To approximate the length of a lake, a surveyor starts at one end of the lake and walks 245 yards then turns 110° and walks 270 yards until he arrives at the other end of the lake. Approximately how long is the lake? Show diagram, calculator ready set up and answer.
3. The angle of elevation to the top of a building is 31° . At a point 60 feet closer, the angle of elevation to the top of the same building is 46° . Approximate the height of the building.
4. Jack and Jill are walking toward each other on a path through the park. The path runs east and west. A hot air balloon is directly above the path between them. Jack sees the balloon when looking east at an angle of elevation of 46° . Jill sees the balloon looking west at an angle of elevation of 72° . If they are 55 yards apart, how far is the balloon from the male observer?
5. You are looking at buying a triangular plot of land. The fencing that outlines the plot of land measures 130 yards, 325 yards, and 245 yards on each side. Draw and label a picture to represent this problem. Find the area of the land in square yards. Then find the number of acres if 1 acre = 4840 square yards. Round your answer to the nearest hundredth.