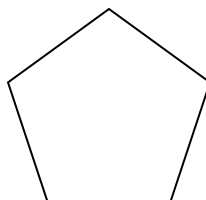


Review of Sections 6.1 and 6.2 Worksheet #2

1. An isosceles triangle has sides of length 28, 28, and 39. Find the measures of all three angles. **Round answers to three decimal places.**
  
2. Two airplanes leave an airport at the same time on different runways. The angle between the runways is  $85^\circ$ . One flies at 420 miles per hour and the other flies at 370 miles per hour. How far apart will the airplanes be after three hours? **Round final answer to three decimal place.**
  
3. Given an oblique triangle with  $C = 72^\circ$ ,  $A = 15^\circ$ ,  $b = 342.6$ , find side  $a$  **to the nearest thousandth**
  
4. A parallelogram has a  $58^\circ$  angle and sides 14 cm and 18 cm long. Find the length of the longer diagonal to **three decimal places** and the length of the shorter diagonal to **three decimal places.**
  
5. Find the area of a regular pentagon inscribed in a circle of radius 28 inches. **Round final answer to three decimal places**

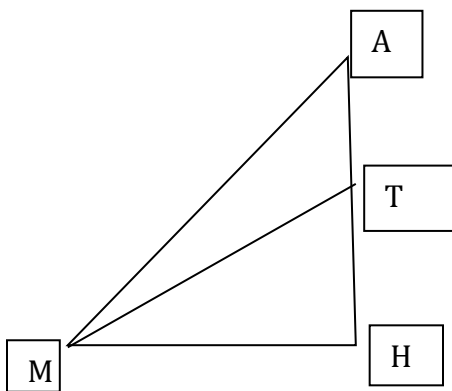


6. A triangular plot of ground has sides 720 feet and 666 feet, and 624 feet. Find the area of the plot. **Round final answer to three decimal places.**

7) Two women 320 feet apart observe a hill between them. The respective angles of elevation to the top of the hill are  $69.4^\circ$  and  $52.6^\circ$ . Find the height of the hill to two decimal places.

8) MT is a median of triangle MAH.

If  $m = 3$  inches,  $a = 8$  inches,  $h = 9$  inches, find the length of MT to the nearest tenth of an inch



Answers:

- 1)  $45.859^\circ, 45.859^\circ, \& 88.282^\circ$  2) 1604.964 miles 3) 88.793 units  
4) shorter: 15.903 cm; longer: 28.055 cm 5) 1864.071 square inches 6) 192339.197 square feet  
7) 280.60 feet 8) 8.4 inches