

Worksheet 9 – 5 Assignment # _____

Do your work on a separate piece of paper with your textbook assignment. Draw each diagram carefully!

1. A light airplane is flying at 180 mph with a heading of 065° at noon. One hour later a second airplane flying at 240 mph leaves the same airport with a heading of 350° . To the nearest mile, how far apart are the airplanes at 4pm? (Answer: 877 miles)
2. A pilot flew his airplane at a constant speed of 220mph with a heading of 120° . After one hour of flying he changed the direction of his course to 072° . He continued in this direction for 1.5 hours to reach his destination. How much farther was this flight than a straight-line flight to his destination? (Answer: 45.6 miles. Hint: First add the 2 sides of the triangle, then subtract the straight line flight distance)
3. From the north corner of Park Avenue, a surveyor walked $N38^\circ E$ for 128 m and then $S48^\circ E$ for 150m. Find the surveyor's distance from his starting point (Answer: 190m)
4. From a cement marker, a surveyor walked $S28^\circ W$ for 300ft. He then proceeded $N40^\circ W$ for 500 ft. How far is he from his starting point? Find the area of this triangular plot of land. (Answer: 477ft; 69539 ft^2)
5. From an iron post, proceed $N 50^\circ E$ for 200 ft; then $N 10^\circ E$ for 100 ft. What is the distance to the starting point? Find the area of the triangular plot of land. (284 ft; 6428 ft^2)