

7) (from page 2) Two jet aircrafts leave an airport at the same time. The course of the first is 160° while the course of the second is 290° . If the first travels 500 mph and the second 600 mph,

- a) **What is the distance between them at the end of 3 hours?**
- b) **What course would the first plane travel to reach the second plane in this instance?**

- a) Distance = 2993.502 miles
- b) Course = 312.6°

- 1) A plane flies 600 km on a course of 300° . It then flies South for a while and finally flies on a 40° course to return to its starting point. Find the total distance traveled.

$$\text{Total Distance} = 600 + 808.378 + 919.253 = 2327.631 \text{ km}$$

- 2) After leaving an airport, a plane flies 1.5 hours at a speed of 200km/h on a course of 200° . Then, on a course of 340° , the plane flies for 2h at a speed of 250 km/h.
- a) At this time, how far from the airport is the plane?
 - b) What course must the plane travel on to return to the airport?

- a) Distance from airport = 331.944 km
- b) Course to return = 124.5°

- 3) Town T is 8 km Northeast of village V. City C is 4 km from T on a course of 150° from T. What is the distance between the city and the village?

$$\text{Distance between C and V} = 7.965 \text{ km}$$