1. Train travels north for 2 hours at 100 m.p.h., then northwest for 1 hour at 100 m.p.h.
   (a) What is the distance between the train’s starting point and its location after 3 hours?
   (b) What bearing would you take to return straight to the train’s starting point?

2. You walk southwest for 2 hours at 4 m.p.h. then you turn and walk east for 1 hour at 4 m.p.h.
   (a) What is the distance between your starting point and your location after 3 hours?
   (b) What bearing is your final location from your starting point?
   (c) What bearing would you take to return to your starting point?

3. Ben leaves port paddling his burchbark canoe in a southwesterly direction at 1 knot. At the same time, Alden leaves port and sails southeast at 6 knots. After 2 hours, Alden receives a Morse code distress signal that Ben has capsized. (A nautical mile = 1.15 land miles ≈ 1.85 km; a knot is a unit of speed for boats; a boat sailing at 6 knots is moving 6 nautical miles per hour).
   (a) What is the distance (in nautical miles) between Ben and Alden? ______________________
   (b) What bearing should Alden take to sail directly to Ben? ______________________
4. You are creating a map of 3 ways which intersect as sketched below. Pot(ter) Hole Road and Primerose Lane start at P and run toward Sands Beach Way at an angle of 37 degrees between them. Primerose Lane is 200 yards. Pot(ter) Hole Road is 170 yards.

(a) How long is Sands Beach Way? ________________

(b) What bearing would you take from Point P to reach Sands Beach Way

(I) by Pot(ter) Hole Road? ________________

(II) by Primerose Lane? ________________

5. A plane flies 600 km. on a course of $300^\circ$. Then the plane turns due south for 900 km.

(a) How far west of the starting point is the plane? ________________

(b) How far from the starting point is the plane? ________________

(c) What bearing should the plane take to return to the starting point? ________________

(d) If the plane crashed, what bearing would you give to rescuers leaving from the starting point? ________________