Class Discussion

Unit 4 Topic 8 Applications: Bearing

Objective: understand there are two different kinds of bearing, land surveying bearing and aerial bearing.

Ex 0: Demonstration of bearings

(a) Graph a direction of bearing $S75°E$

(b) Bearing of B from A, if A(2,3) and B(7, 4)

Ex 1: A forest fire is spotted from two fire towers (A&B). Assume A is 30 miles due east of B. From A, the bearing of the fire is $N15°W$. From B, the bearing of the fire is $N30°E$.

(a) Sketch a diagram illustrate the locations between tower A, B and the fire.

(b) how far away is the fire from line AB?

(c) If there is a rescue station C, located 10 miles due east of tower B. A helicopter pilot is about to go to the rescue mission. As a staff at traffic control tower, what bearing will you suggest the pilot to set?

(d) if the helicopter has maximum speed of 75 mph, how long will it take for the pilot to reach the fire?