

APP-4 Law of Sines and Cosines Applications

(complete both parts for M, complete part a with significant progress on b for P)

The course for a boat race starts at point A and proceeds in the direction $S45^\circ W$ to point B. From there, the course goes in the direction $S60^\circ E$ to point C. From C, the course returns back to point A. Point C lies directly 8km south of point A.

a) Draw a labeled picture of the model.

b) Find the total distance of the course. (Leave answers as simplified expressions).