

Segments and angles

№1. A sheet of paper has the shape of a circle. Is it possible to draw five segments on it, each connecting two points on the boundary of the sheet, such that among the parts into which these segments divide the sheet there is one pentagon and two quadrilaterals?

№2. A mechanical clock shows 9 hours 24 minutes.

1. What is the angle between the hour hand and the minute hand at this moment? Give your answer in degrees, rounded to the nearest integer.
2. After how many minutes will the minute hand catch up with the hour hand? Give your answer rounded to the nearest integer.



№3. Five points A , B , C , D , and E are marked in the plane. It is known that

$$AB = 21, \quad BC = 52, \quad CD = 152, \quad DE = 33, \quad EA = 46.$$

What is the minimum possible distance between points C and E ?