AI1110 - Probability and Random Variables
Assignment 1

Jarupula Sai Kumar
cs21btech11023

May 20, 2022

CBSE class 10 2018

Example 7B

On a map drawn to a scale of 1 : 50,000, a rectangular plot of land ABCD has the following dimensions. AB = 6cm; BC = 8cm and all angles are right angles. Find: (i) the actual length of the diagonal distance AC of the plot in km. (ii) the actual area of the plot in sq km.

Solution

According to given question

Given Scale 1:50,000

1 Cm Represents 50,000 cm $=\cdot\frac{50{,}000}{1000\cdot 100} = 0.5Km$

(1) In $\vec{\Delta}$ABC

By applying Pythogoras Theorem

$AC^2 = AB^2 + BC^2$

$AC^2 = 6^2 + 8^2$

$AC^2 = 36 + 64$

Finally we get AC= 10 cm

length of diagnol of AC=$10\cdot 0.5 = 5Km$

Solution Continued...

(2) We Know that,

Area of Rectangle ABCD=AB$\cdot BC$

$=6\cdot 8 = 48cm^2$

Actuall Plot of Area $= 48\cdot 0.25 = 12km^2$