

Problem Corner Fall 2020

PROBLEM:

Leo owns a piece of land, shown in the sketch as parcel 1. He wishes to divide the property into three parcels of equal area and give one to each of his three sons. To be completely fair to each son, Leo also wants each parcel to have an equal amount of frontage along third street. Leo has hired surveyor Susan to help divide parcel. Due to obstacles in her way, she was unable to get all angles and distances of the parcel. She obtained the angles and distances as shown and now needs to complete her calculations.

ANSWERS:

Distance AD = 148.16

Distance BC = 122.73

Angle ABC = $127^{\circ} 3' 36''$

Distance BD = 130.48

Area ABCD = 12.300