

**COLLEGE OF COMPUTING AND INFORMATION SCIENCES**

**DEPARTMENT OF NETWORKS**

**STUDENT NAME:** MWESIGWA ISAAC

**REGISTRATION NUMBER:** 23/U/12539/PS

**PROGRAM**: SOFTWARE ENGINEERING

**COURSE UNIT**: PROBLEM SOLVING AND PROGRAMMING CONCEPTS

**COURSE CODE**: BSE 1106

**YEAR OF STUDY**: 2023

**Problem specification:**

A vacation landbroker nneds to approximate the price of a given plot of land which is measured in decimals. He only possesses measurements of the length and the width of the plot and we need to calculate the area as well as the approximated price.

**Problem Analysis:**

We are required to approximate the price of a plot of land which is determined by the area of the plot in decimals multiplied by the price per decimal.

We have measurements from the user in metres and hence need to compute the area of the plot in square metres and then converting it to decimals.

We also have the price per decimal which we assume is a standard rate/constant.

**Algorithm:**

Compute the area in square metres with lengths and widths provided by the user.

Formula for area is assumed to be length multiplied by width

Convert the computed area to decimals with the expression 1 square metre = 0.0247 decimals.

Size of the plot = area in square metres / one square metre in decimals

Approximated price = size of the plot \* price per decimal