

CSCI 1410: Fundamentals of Computing

Class Work 02

Find the Error

The following pseudocode algorithm has an error. The program is supposed to ask the user for the length and width of a rectangular room, then display the room's area. The program must multiply the width by the length in order to determine the area. Find the error.

```
area = width × length
Display "What is the room's width?"
Input width.
Display "What is the room's length?"
Input length.
Display area.
```

Algorithm Workbench

Write pseudocode algorithms for the programs described as follows:

Available Credit A program that calculates a customer's available credit should ask the user for the following:

- The customer's maximum amount of credit
- The amount of credit used by the customer

Once these items have been entered, the program should calculate and display the customer's available credit. You can calculate available credit by subtracting the amount of credit used from the maximum amount of credit.

Algorithm Workbench

Given the following algorithm for calculating payroll:

```
Display "How many hours did you work?"
Input hours.
Display "How much do you get paid per hour?"
Input rate.
Store the value of hours times rate in the pay variable.
Display the value in the pay variable.
```

Modify it so that it calculates pay with overtime.

Predict the Result

The following are programs expressed as English statements. What would each display on the screen if they were actual programs?

```
The variable x starts with the value 0.  
The variable y starts with the value 5.  
Add 1 to x.  
Add 1 to y.  
Add x and y, and store the result in y.  
Display the value in y on the screen.
```