CSCI 160 in-class exercise Tuesday Sept. 27th

1. Show, as exactly as possible, the output from the following program assuming the data the user supplies as input is **10.0**

```cpp
#include <iostream>
using namespace std;

const float Pi = 3.14;

float getDiameter();
void displayCircumf(float diam);

int main()
{
   float diameter = getDiameter();
   displayCircumf(diameter);
   return 0;
}

float getDiameter()
{
   float diam;
   cout << "Please enter the diameter of your tire in cms (e.g. 50.8)";
   cout << endl;
   cin >> diam;
   return diam;
}

void displayCircumf(float diam)
{
   float circumf = Pi * diam;
   cout << "The circumference of your tire is ";
   cout << circumf << " cms" << endl;
}
```

2. Identify all the bugs (syntax and logic errors) in the following program

```cpp
#include iostream>
use namespace standard;

const float Pi = 3.14

void displayArea(float rad);

int main()
{
   float radius = getRadius();
   displayArea(radisu);
   return 0;
}

float getRadius();
{
   float rad;
   cout < "Please enter the radius of your tire in cms (e.g. 25.4)";
   cout < endl;
   cin < rad;
}

void displayArea(float rad)
{
   int area = pi * rad * rad;
   cout << "The area of your tire is ";
   cout << area << " sq cms" endl;
}
```

3. Write a complete C++ program (with or without functions) that prompts the user to enter the height and width of a rectangle (in metres) then computes and displays the area of the rectangle in square metres.

4. Modify your program so that, although the user enters the height and width in metres, the area is displayed in square centimetres.