Assignment 1 - solutions

PROBLEM SET 1 -SOLUTIONS (Total points: 108)

Problem 1 (7 points)

OUTPUT:

12 35

Problem 2 (7 points)

Errors in code:

missing second < after cout;

missing final quote after \n,

missing semicolon after return statement.

Corrected code:

```
#include <iostream> using namespace std;
int main()
{
cout << "Hello World\n";
return 0;
}
```

Problem 3 (5 points)

```
#include <iostream>
using namespace std;
int main()
{cout << "I love C++";return 0;
}
```

Problem 4 (12 points)

a) (short) integer
b) double or float
c) (long) integer
d) double or float
e) char * (NOT char – char is only a single character;
only a char * can store a whole string)
f) boolean (bool)

Problem 5 (6 points)

a) int myAge = 18;
b) double yardArea = 20.5;
c) long numOfStars = 100000000;
d) double avgRain = 15.3;
e) char *myName = "Tanmay";
f) bool success = false;

Problem 6 (16 points)

a. expression, double, constant
b. statement
c. expression, double, neither, 76.8
d. expression, int, neither, 0
e. expression, double, neither, 0.75
f. statement
g. expression, int (or long int), identifier, 4
h. expression , char, constant

Problem 7 (18 points)

```
#include<iostream>
using namespace std;
int main()
{
int a, b;float c;
cout << "Enter an integer:";cin >> a;
cout << "Enter another integer:";cin >> b;
cout << "Enter a number with decimal:";cin >> c;
cout << "You entered " << a << ", " << b << ", and " << c;
return 0;
}
```

Problem 8 (20 points)

```
#include <iostream>
using namespace std;
int main()
{
int initialMiles, finalMiles, milesTraveled;
float initialTank, finalTank, fuelUsed, fuelConsumed;
```

```
cout << "Enter the miles on your car's odometer at the start of
your journey\n";
cin >> initialMiles;
cout << "Enter the fuel level in your tank at the start of your
journey \n";
cin >> initialTank;
cout << "Enter the miles on your car's odometer at the end of your
journey \n";
cin >> finalMiles;
cout << "Enter the fuel level in your tank at the end of your journey
\n";
cin >> finalTank;
milesTraveled = finalMiles -initialMiles;
fuelUsed = initialTank -finalTank;
double milesPerGal = milesTraveled / fuelUsed;
cout << "You traveled " << milesTraveled << " miles using "<<
fuelUsed << " gallons of fuel \n";
cout << "Your fuel consumption was " << milesPerGal << " miles
per gallon \n";
return 0;
}
```

Problem 9 (17 points)

```
#include <iostream>
using namespace std;
int main()
{
const int NUMBER_OF_VARIABLES = 2;
int x = 100;
++x %= NUMBER_OF_VARIABLES;
x += 2;
cout << x;
return 0;
}
```