



6. (22points) Consider following C++ code and its execution input/output result. This program computes and displays an average value of input float-type values. Fill out blanks (a), (b) and (c) with appropriate C++ codes.

<pre>#include &lt;vector&gt; #include &lt;iostream&gt; using namespace std;  // sum adds the values of the vector it is passed. float sum( (a) ) { (b) }</pre>	<pre>int main() {     vector&lt;float&gt; a; // Declare a vector.     float temp;     while (cin &gt;&gt; temp) {         a.push_back(temp);     }     cout &lt;&lt; "Average = "         &lt;&lt; (c) &lt;&lt; endl;     return 0; }</pre>
	<p>Input :</p> <p>1.0 1.5 2.0</p> <p>Output :</p> <p>Average = 1.5</p>

7. (20points) Write a C++ function "Max" that takes three parameters x, y, and z, and returns the biggest value among the three parameters. Note that **the types of x, y and z are the same** but the type is a generic type. Therefore, you must use template to write the "Max" function that can accept any type of parameters as shown in the following sample code.

<pre>#include &lt;iostream&gt; int main() {     int a=3, b=5, c=3 ;     float d=3.5, e=2.3, f=4.1;     std::cout &lt;&lt; Max(a,b,c) &lt;&lt; "," &lt;&lt; Max(d,e,f) &lt;&lt; "\n";     return 0; }</pre>	<p>(Write your Max function here using template.)</p>
<p>output :</p> <p>5,4.1</p>	

8. (10points) What is the output of the following C++ program to the screen?

<pre>#include &lt;iostream&gt; #include &lt;list&gt; #include &lt;vector&gt; using namespace std;  int main () {     list&lt;int&gt; mylist;     list&lt;int&gt;::iterator it;      // set some initial values:     for (int i=1; i&lt;=5; i++) mylist.push_back(i);      it = mylist.begin();     ++it;      mylist.insert (it,10);</pre>	<pre>mylist.insert (it,2,20);  --it;  vector&lt;int&gt; myvector (2,30); mylist.insert (it,myvector.begin(),myvector.end());  cout &lt;&lt; "mylist contains:"; for (it=mylist.begin(); it!=mylist.end(); it++)     cout &lt;&lt; " " &lt;&lt; *it; cout &lt;&lt; endl;  return 0; }</pre>
	<p>Output : (PUT YOUR ANSWER HERE)</p>