Practice 5

1. What is the output of the following program segment? (Assume that the screen is an ostream_iterator initialized to the standard output device to output elements of type int.)

```
int list[5] = {2, 4, 6, 8, 10};
vector<int> vecList(5);
ostream_iterator<int> screen(cout, " ");
copy (list, list +5, vecList.begin());
copy(vecList.begin(), vecList.end(), screen);
cout <<endl;
```

2. What is the output of the following program segment? (Assume that the screen is an ostream_iterator initialized to the standard output device to output elements of type int.)

```
vector<int> vecList;
vector<int>::iterator vecIt;
ostream_iterator<int> screen(cout, " ");

vecList.push_back(3);
vecList.push_back(5);
vecList.push_back(7);
vecIt = vecList.begin();
++vecIt;
vecList.erase(vecIt);
vecList.push_back(9);
copy(vecList.begin(), vecList.end(), screen);

cout <<endl;
```

3. Write a program that uses a vector object to store a set of real numbers. The program outputs the smallest, largest, and the average of the numbers. When declaring the vector object, do not specify its size. Use the function push_back to insert elements in the vector object.

4. Write a program that allows the user to enter the last names of five candidates in a local election and the votes received by each candidate. The program should then output each candidate's name, votes received by that candidate, and the percentage of the total votes received by the candidate. Your program should also output the winner of the election. A sample output is as follows :

```
Enter candidate's name and the votes received by the
     candidate.
Johnson 5000
Miller 4000
Duffy 6000
Robinson 2500
Sam 1800
Candidate      Votes Received    % of Total Votes
Johnson           5000               25.91
Miller            4000               20.73
Duffy             6000               31.09
Robinson          2500               12.95
Sam               1800                9.33
Total            19300
The Winner of the Election is Duffy
Press any key to continue . . .
```