**Page 46,Question 25**

//Program 3.7

#include <iostream>

using namespace std;

int main(){

 int more=1,weightCnt=0;

 double weight,totWeight=0;

 cout<<"Calculate the Average and Total Weight";

 cout<<" of 5 students \n\n";

 while(more==1)

 {

 cout<<"Enter the weight of a student: ";

 cin>>weight;

 totWeight +=weight;

 weightCnt++;

 cout<<"Anymore weights? Enter 1 for yes OR 0 for no: ";

 cin>>more;

 }

 cout<<"\n\nYou have"<<weightCnt<<"weights.";

 cout<<"\nThe Average Weight: "<<(totWeight/weightCnt);

 cout<<"\nThe Total Weight : "<<totWeight;

 cout<<"\nEnd of Program";

 return 0;

 }

|  |  |  |
| --- | --- | --- |
| **Test data** | **The Average Weight** | **The Total Weight** |
| 50.5,45.8,65.2,42.9,54.3 | 51.74 | 258.7 |

//Program 3.7a

#include <iostream>

using namespace std;

int main()

{

 int weightCnt = 0;

 double weight, totWeight = 0;

 cout << "Calculate the Average and Total Weight";

 cout << " of 5 students \n\n";

 while ( weightCnt < 5 )

 {

 cout <<"Enter the weight of a student: ";

 cin>> weight;

 totWeight += weight;

 weightCnt++;

 }

 cout << "\n\nYou have" << weightCnt << "weights.";

 cout << "\nThe Average Weight: " << (totWeight/weightCnt);

 cout << "\nThe Total Weight : " << totWeight;

 cout << "\n\nEnd of Program";

 return 0;

}

|  |  |  |
| --- | --- | --- |
| **Test data** | **The Average Weight** | **The Total Weight** |
| 50.5,45.8,65.2,42.9,54.3 | 51.74 | 258.7 |

1. Type of control used by the while loop in Program 3.7a is sentinel.
2. The value of variable weightCnt will exit the loop is 6.