

ca5-2 – Loops

Note: for some of these problems, a code segment is provided to use as a guide. You may have to add additional code to complete the program. (For example, you must add the `#include <iostream>`

filename: ca5-2a.cpp

Below is a program segment that will read in exactly 7 test scores and add 10 points to each score. It prints out the original score and the new score.

It works for exactly 7 data items.

```
int score, newscore, i;

for (i=1; i<=7; ++i )
{
    cin>>score;
    newscore = score + 10;
    cout<<i<<" - "<<score<<" with bonus "<<newscore<<endl;
}
}
```

Write a program that will read in exactly 12 prices . Add 7.50 to each price . Print the original price and the new price. (note: format each price to 2 decimal places to the right of the decimal place)

filename: ca5-2b.cpp

Sentinel Values – a sentinel value is a number that is not a valid data value used to signal the end of the input or the last value to be processed. We read in the next value first, and then check the value to see if we should continue. In this example program, we want to stop if we read in a -1.

```
cin>>score;
while ( score != -1 )
{
    newscore = score + 7.50;
    cout<<" score "<<score<<" new Score "<<newscore<<endl;
    cin>>score;
}
}
```

Write a program that will read in a list of prices. We want to add 10 to each price. Your program should work stop when it reads in a price of -1.

filename: ca5-2c.cpp

This program keep a running total. Before the loop, we must set the total to zero. Then each time we read a number, we add it to the total to get a new total. When we run out of scores, we go to the next statement after the loop, we will have the total.

```
int score, total;

total = 0;

while ( cin>>score )
{
    total = total + score;
    cout<<score<<" current total "<<total<<endl;
}

cout<<"Final Total"<<total;
```

Write a program that will read in a list of prices. You program should read in each price and then print the total of all the prices