

```
#include <iostream>

using namespace std;

int main()
{
    int grades[20];
    float average = 0;
    int highest_grade = 0;
    int lowest_grade = 0;

    for(int i = 0; i < 20; i++) {
        cout << "enter grade " << (i+1) << ": ";
        cin >> grades[i] ;
        if (grades[i]>100 or grades[i]<0){
            cout << "please enter a valid grade" << "\n";
            i = i-1;
        }
    }

    for(int i=0;i<20;i++){
        average = average + grades[i];
    }
    cout << "the average is " << average/20 << "\n";

    highest_grade=grades[0];

    for(int i=0;i<20;i++){
        if(highest_grade < grades[i])
            highest_grade = grades[i];
    }
    cout << "the highest grade is " << highest_grade << "\n";

    for(int i=0;i<20;i++){
        if(highest_grade > grades[i])
            highest_grade = grades[i];
    }
    cout << "the lowest grade is " << highest_grade;
}
```