Write a program that reads a list of numbers (type double) and prints their average. Assume that the input contains numbers separated by spaces and that the list ends either with an end of file (Ctrl-Z if reading from the keyboard) or any input that is not a valid number. The input list can be any length, 1 number or longer. For example (user input in bold) (50 points):

```
5 2.5 -0.9 x
The average is 2.2
```
```
0 1 2 3 4 5 ^Z
The average is 2.5
```

```cpp
#include <iostream>
using namespace std;

int main()
{
    double sum = 0, x;
    int count = 0;
    while (cin >> x)
    {
        sum += x;
        ++count;
    }
    cout << "The average is " << sum / count << endl;
    return 0;
}
```