

The Trip

Program:

```
#include<bits/stdc++.h>
using namespace std;
int n;
float costs[1000];

int main() {
    int sum=0;
    while (std::cin >> n && n != 0)
    {
        for (int i = 0; i < n; i++)
        {
            cin>>costs[i];
            costs[i] *= 100;
            sum+=costs[i];
        }

        double avg = ((double) sum) / n;
        double spend_less = 0;
        double spend_more = 0;

        for (int i = 0; i < n; i++)
        {
            double difference = costs[i] - avg;
            if (difference < 0)
            {
                spend_less += -((int) difference) / 100.0;
            }
            else
            {
                spend_more += ((int) difference) / 100.0;
            }
        }

        printf("%.2f\n", spend_less > spend_more ? spend_less : spend_more);
    }
    return 0;
}
```

Output:

```
15.00 (Jan 2018)
3
10.00
20.00
30.00
$10.00
```

```
4
15.00
15.01
3.00
3.01
$59.98
0
```