

Moving Average

```
1 from collections import deque
2 # Method 1
3 class MovingAverage(object):
4     def __init__(self, size):
5         self.size = size
6         self.q = deque()
7         self.sum = 0
8
9     def next(self, val):
10        self.q.append(val)
11        self.sum += val
12        if len(self.q) > self.size:
13            self.sum -= self.q.popleft()
14        return self.sum / len(self.q)
15
16 # Method 2
17 class MovingAverage(object):
18     def __init__(self, size):
19         self.size = size
20         self.q = deque()
21         self.sum = 0
22
23     def next(self, val):
24         if len(self.q) == self.size:
25             self.sum -= self.q.popleft()
26         self.q.append(val)
27         self.sum += val
28         return self.sum / len(self.q)
29
30
31
```