```
1  //
2  //  This is the CPTN230 A1 Class Source Code File
3  //
4  //  Hal Bettle
5  //  30 August 2008
6  //
7  //
8
9  #include "CPTN230A1class.h"
10
11 Numbers::Numbers()
12 {
13     int i;
14     total = 0;
15     average = 0;
16     for (i = 0; i < 5; i++)
17     {
18         nums[i] = 0;
19     }
20 }
21
22 void Numbers::Display_the_numbers(void)
23 {
24     for(int k = 0; k < MAX_SIZE; k++)
25     {
26         cout << "Number " << k + 1 << " is " << nums[k] << '.' << endl;
27     }
28     return;
29 }
30
31 int Numbers::Get_an_int(int location)
32 {
33     return nums[location];
34 }
35
36 void Numbers::Set_an_int(int location, int value)
37 {
38     nums[location] = value;
39     return;
40 }
41
42 void Numbers::Do_the_math(void)
43 {
44     total = 0;
45     for(int k = 0; k < MAX_SIZE; k++)
46     {
47         total = total + nums[k];
48     }
49     average = (double) total / MAX_SIZE;
50     return;
51 }
52
53 void Numbers::Display_the_results(void)
54 {
55     cout << "The total is "
56          << total
57          << " and the average is "
58          << flush;
59     if (total > 99999)
60         cout.precision(7);
61     if (total > 9999)
62         cout.precision(6);
63     else if (total > 999)
64         cout.precision(5);
65     else if (total > 99)
66         cout.precision(4);
```

```
67      else
68          cout.precision(3);
69      cout << showpoint
70           << average
71           << '.'
72           << endl;
73      return;
74  }
75
```