

```
1  #include <stdio.h>
2  #include <stdarg.h>
3
4  int main(void)
5  {
6      // function prototypes
7      int CalculateSum(int, ...);
8
9      // variable declarations
10     int answer;
11
12     // code
13     printf("\n\n");
14
15     answer = CalculateSum(5, 10, 20, 30, 40, 50);
16     printf("Answer = %d\n\n", answer);
17
18     answer = CalculateSum(10, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1);
19     printf("Answer = %d\n\n", answer);
20
21     answer = CalculateSum(0);
22     printf("Answer = %d\n\n", answer);
23
24     return(0);
25 }
26
27 int CalculateSum(int num, ...) // VARIADIC FUNCTION
28 {
29     // function prototype
30     int va_CalculateSum(int, va_list);
31
32     // variable declarations
33     int sum = 0;
34     va_list numbers_list;
35
36     // code
37     va_start(numbers_list, num);
38
39     sum = va_CalculateSum(num, numbers_list);
40
41     va_end(numbers_list);
42     return(sum);
43 }
44
45 int va_CalculateSum(int num, va_list list)
46 {
47     // variable declaration
48     int n;
49     int sum_total = 0;
50
51     // code
52     while(num)
```

```
53     {  
54         n = va_arg(list, int);  
55         sum_total = sum_total + n;  
56         num--;  
57     }  
58  
59     return(sum_total);  
60 }  
61  
62
```