

```
1  #include <stdio.h>
2  int main(void)
3  {
4      //variable declaraions
5      int iArray[] = { 9, 30, 6, 12, 98, 95, 20, 23, 2, 45 };
6      int int_size;
7      int iArray_size;
8      int iArray_num_elements;
9
10     float fArray[] = { 1.2f, 2.3f, 3.4f, 4.5f, 5.6f, 6.7f, 7.8f, 8.9f };
11     int float_size;
12     int fArray_size;
13     int fArray_num_elements;
14
15     char cArray[] = { 'A', 'S', 'T', 'R', 'O', 'M', 'E', 'D', 'I', 'C', 'O', 'M', 'P' };
16     int char_size;
17     int cArray_size;
18     int cArray_num_elements;
19
20     int i;
21
22     //code
23
24     // ***** iArray[] *****
25     printf("\n\n");
26     printf("In-line Initialization And Loop (for) Display Of Elements of Array\n\n");
27
28     int_size = sizeof(int);
29     iArray_size = sizeof(iArray);
30     iArray_num_elements = iArray_size / int_size;
31
32     for (i = 0; i < iArray_num_elements; i++)
33     {
34         printf("iArray[%d] (Element %d) = %d\n", i, (i + 1), iArray[i]);
35     }
36
37     printf("\n\n");
38     printf("Size Of Data type 'int' = %d bytes\n", int_size);
39     printf("Number Of Elements In 'int' Array 'iArray[]' = %d Elements\n", iArray_num_elements);
40     printf("Size Of Array 'iArray[]' (%d Elements * %d Bytes) = %d Bytes\n\n", iArray_num_elements, int_size, iArray_size);
41
42     // ***** fArray[] *****
43     printf("\n\n");
44     printf("In-line Initialization And Loop (while) Display Of Elements of Array\n\n");
45
46     float_size = sizeof(float);
```

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47     fArray_size = sizeof(fArray);
48     fArray_num_elements = fArray_size / float_size;
49
50     i = 0;
51     while(i < fArray_num_elements)
52     {
53         printf("fArray[%d] (Element %d) = %f\n", i, (i + 1), fArray[i]);
54         i++;
55     }
56
57     printf("\n\n");
58     printf("Size Of Data type 'float'                = %d bytes\n",      ↗
59         float_size);
59     printf("Number Of Elements In 'float' Array 'fArray[]'    = %d Elements\n", ↗
60         fArray_num_elements);
60     printf("Size Of Array 'fArray[]' (%d Elements * %d Bytes)    = %d Bytes\n\n", ↗
61         fArray_num_elements, float_size, fArray_size);
61
62     // ***** cArray[] *****
63     printf("\n\n");
64     printf("In-line Initialization And Loop (do while) Display Of Elements of ↗
65         Array 'cArray[]': \n\n");
65
66     char_size = sizeof(char);
67     cArray_size = sizeof(cArray);
68     cArray_num_elements = cArray_size / char_size;
69
70     i = 0;
71     do
72     {
73         printf("cArray[%d] (Element %d) = %c\n", i, (i + 1), cArray[i]);
74         i++;
75     }while (i < cArray_num_elements);
76
77     printf("\n\n");
78     printf("Size Of Data type 'char'                = %d bytes\n",      ↗
79         char_size);
79     printf("Number Of Elements In 'char' Array 'cArray[]'    = %d Elements\n", ↗
80         cArray_num_elements);
80     printf("Size Of Array 'cArray[]' (%d Elements * %d Bytes)    = %d Bytes\n\n", ↗
81         cArray_num_elements, char_size, cArray_size);
81
82     return(0);
83 }
84
85
```