

```

#include <stdio.h>
#include <math.h>
#include <stdlib.h>
int main() {
    int s=4;
    float a,v,r,h;
    while(s)
    {
        printf("Enter the choice of shape:\n");
        printf("01.Cylinder\n02.Cone\n03.Sphere\n0.Exit\n");
        scanf("%d",&s);
        switch(s)
        {
            case 01:printf("Enter the radius:\n");
                scanf("%f",&r);
                printf("Enter the height:\n");
                scanf("%f",&h);
                a=(2*3.14*r*h)+(2*3.14*r*r);
                v=(3.14*r*r*h);
                printf("Area: %f\nVolume: %f\n",a,v);
                break;
            case 02:printf("Enter the radius:\n");
                scanf("%f",&r);
                printf("Enter the height:\n");
                scanf("%f",&h);
                a=(3.14*r)*(r+sqrt((h*h)+(r*r)));
                v=(3.14*r*r*h)/3.0;
                printf("Area: %f\nVolume: %f\n",a,v);
                break;
            case 03:printf("Enter the radius:\n");
                scanf("%f",&r);
                a=4*3.14*r*r;
                v=(4*3.14*r*r*r)/3.0;
                printf("Area: %f\nVolume: %f\n",a,v);
                break;
            case 0:printf("Exit\n");
                exit(0);
            default:printf("Invalid choice\n");

        }
    }
    return 0;
}

```

```

main.c
1  #include <stdio.h>
2  #include <math.h>
3  #include <stdlib.h>
4  int main() {
5      int s=4;
6      float a,v,r,h;
7      while(s)
8      {
9          printf("Enter the choice of shape:\n");
10         printf("01.Cylinder\n02.Cone\n03.Sphere\n0.Exit\n");
11         scanf("%d",&s);
12         switch(s)
13         {
14             case 01:printf("Enter the radius:\n");
15                     scanf("%f",&r);
16                     printf("Enter the height:\n");
17                     scanf("%f",&h);
18                     a=(2*3.14*r*h)+(2*3.14*r*r);
19                     v=(3.14*r*r*h);
20                     printf("Area: %f\nVolume: %f\n",a,v);
21                     break;
22             case 02:printf("Enter the radius:\n");
23                     scanf("%f",&r);
24                     printf("Enter the height:\n");
25                     scanf("%f",&h);
26                     a=(3.14*r)*(r+sqrt((h*h)+(r*r)));
27                     v=(3.14*r*r*h)/3.0;
28                     printf("Area: %f\nVolume: %f\n",a,v);
29                     break;
30             case 03:printf("Enter the radius:\n");
31                     scanf("%f",&r);
32                     a=4*3.14*r*r;
33                     v=(4*3.14*r*r*r)/3.0;
34                     printf("Area: %f\nVolume: %f\n",a,v);
35                     break;
36             case 0:printf("Exit\n");
37                     exit(0);
38             default:printf("Invalid choice\n");
39         }
40     }
41 }
42 return 0;
43 }

```

input

```

Enter the radius:
4
Enter the height:
3
Area: 175.839996
Volume: 150.720001
Enter the choice of shape:
01.Cylinder
02.Cone
03.Sphere
0.Exit

```