

Q) Write a C/Java prgm to calculate volume and area of cylinder, cone, sphere.

Code:

```
#include <stdio.h>
#include <math.h>
void main()
{
    int a, z;
    float h, r;
    do
    {
        printf("\nEnter height: ");
        scanf("%f", &h);
        printf("\nEnter 1. Cylinder \n 2. Cone \n 3. Sphere ");
        printf("\nSelect any shape (1-3): ");
        scanf("%d", &a);
        if (a == 1)
        {
            printf("\nEnter height: ");
            scanf("%f", &h);
            scanf("%f", &h);
            printf("\nEnter radius: ");
            scanf("%f", &r);
            printf("\nArea = %f", (2 * 3.14 * r * h) + (2 * 3.14 * r * r));
            printf("\nVolume = %f", 3.14 * r * r * h);
        }
        else if (a == 2)
        {
            printf("\nEnter height: ");
            scanf("%f", &h);
            printf("\nEnter radius: ");
            scanf("%f", &r);
        }
    }
}
```

```

printf("\n Area = %.f", (3.14 * r * r));
printf("\n Volume = %.f", (3.14 * r * r * h) / 3);
}
else if (a == 3)
{
printf("\n Enter radius: ");
scanf("%f", &r);
printf("\n Area = %.f", (4 * 3.14 * r * r));
printf("\n Volume = %.f", (4 * 3.14 * r * r * r) / 3);
}
else
printf("\n Enter valid choice (1-3)! ");
printf("\n Press 1 to continue or Press 0 to stop");
scanf("%d", &z);
} while (z);
printf("\n Thank you");
}

```



VolAreaShape.c

Saved



```
1 #include<stdio.h>
2 #include<math.h>
3 void main()
4 {
5     int a,z;
6     float h,r;
7     do
8     {
9         printf("\n\n1.Cylinder\n2.Cone\n3.Sphere");
10        printf("\nSelect any shape(1-3):");
11        scanf("%d",&a);
12        if(a==1)
13        {
14            printf("\nEnter height:");
15            scanf("%f",&h);
16            printf("\nEnter radius:");
17            scanf("%f",&r);
18            printf("\nArea=%f",(2*3.14*r*h)+(2*3.14*r*r));
19            printf("\nVolume=%f",3.14*r*r*h);
20        }
21        else if(a==2)
22        {
23            printf("\nEnter height:");
24            scanf("%f",&h);
25            printf("\nEnter radius:");
26            scanf("%f",&r);
27            printf("\nArea=%f",(3.14*r*r)+(3.14*r*sqrt(h*h+r*r)));
28            printf("\nVolume=%f",(3.14*r*r*h)/3);
29        }
30        else if(a==3)
31        {
32            printf("\nEnter radius:");
33            scanf("%f",&r);
34            printf("\nArea=%f",(4*3.14*r*r));
35            printf("\nVolume=%f",(4*3.14*r*r*r)/3);
36        }
37        else
38            printf("\nEnter valid choice(1-3)!");
39        printf("\nPress 1 to continue or Press 0 to stop");
40        scanf("%d",&z);
41    }while(z);
42    printf("\nThank you");
43 }
```

Try Dcoder's keyboard





1.Cylinder

2.Cone

3.Sphere

Select any shape(1-3):1

Enter height:36

Enter radius:25

Area=9577.000000

Volume=70650.000000

Press 1 to continue or Press 0 to stop1

1.Cylinder

2.Cone

3.Sphere

Select any shape(1-3):3

Enter radius:5

Area=314.000000

Volume=523.333333

Press 1 to continue or Press 0 to stop0

Thank you

Process finished.

× Terminal



```
1.Cylinder
2.Cone
3.Sphere
Select any shape(1-3):5

Enter valid choice(1-3)!
Press 1 to continue or Press 0 to stop
```



```
1.Cylinder
2.Cone
3.Sphere
Select any shape(1-3):2

Enter height:4

Enter radius:20

Area=2536.873702
Volume=1674.666667
Press 1 to continue or Press 0 to stop0

Thank you
Process finished.
```