

6). import java.util.*;

class conics

{

public static void main(String args[])

{

Scanner ob = new Scanner(System.in);

int ~~r, h, ch~~ int r, h, ch, ct = 1;

double A, V, pi = 3.14159;

while (ct != 0)

System.out.println("Enter the values of
radius and height of the conic 3D shapes
you want to find the Area and Volume");

r = ob.nextInt();

h = ob.nextInt();

System.out.println("Enter your choice");

System.out.println("1. Cylinder");

System.out.println("2. Cone");

System.out.println("3. Sphere");

ch = ob.nextInt();

switch (ch)

{

case 1:

{

$A = 2 * pi * r * h + 2 * pi * r * r;$

$V = pi * r * r * h;$

```
System.out.println("Area of Cylinder = " + A +  
    " sq. unit");
```

```
System.out.println("Volume : " + V + " cubic units  
");
```

```
break;
```

```
}
```

```
case 2:
```

```
{
```

```
A = pi * r * (r + Math.sqrt(h*h + r*r));
```

```
V = (pi * r * r * h) / 3.0;
```

```
System.out.println("Area of Cone : " + A + " sq. unit");
```

```
System.out.println("Volume : " + V + " cubic units");
```

```
break;
```

```
}
```

```
case 3:
```

```
{
```

```
A = 4 * pi * r * r; V = (4 * pi * r * r * r) / 3.0;
```

```
System.out.println("Area of Sphere : " + A + " sq. unit");
```

```
System.out.println("Volume : " + V + " cubic units");
```

```
break;
```

```
}
```

```
default: System.out.println("Wrong choice!!");
```

```
}
```

```
System.out.println("Please enter any number  
to find more values of different shapes
```

and to terminate enter 0");

ct = qk.nextInt();

y

y

y