

cylinder

Write a C program that reads the user input on the radius and height of the cylinder, and then computes the volume and surface area of the cylinder. The program should first read in the number of times for computing the volume and surface area of a cylinder. The relevant formulas are volume = $\pi r^2 h$ and surface area = $2\pi r h + 2\pi r^2$, where r is the radius and h is the height. No need to check errors on user input.

A sample program template is given below:

```
#include <stdio.h>
#define PI 3.1416
int main()
{
    /* Write your code here */
    return 0;
}
```

Sample input and output sessions are given below:

(1) Test Case 1:

Enter the number of times:

1

Enter the radius:

5

Enter the height:

8

The volume is: 628.32

The surface area is: 408.41

(2) Test Case 2:

Enter the number of times:

2

Enter the radius:

1

Enter the height:

5

The volume is: 15.71

The surface area is: 37.70

Enter the radius:

5

Enter the height:

8

The volume is: 628.32

The surface area is: 408.41