Shapes.

```c
#include <stdio.h>
#include <math.h>

int main ()
{
    int ch = 10;
    float A, V, r, h;

    while ( ch != 4)
    {
    printf(" 1] Cylinder \n2] Cone \n3] Sphere\n4] Exit ");
    scanf("%d",&ch);
    printf(" Enter radius and diameter ");
    scanf(" %f %f ", &r, &h);
    switch (ch)
    {
        case 1 :  A= 2* 3.14 * r * h +2* 3.14 * r *r;
                  V= 3.14* r* r* h;
            break;
        case 2:  A= 3.14 * r ( r+ sqrt(h*h + r* r));
                  V= 3.14 * r* r* h/3;
            break;
        case 3:  A= 4* 3.14 *r* r;
                  V= A* r /3;
    }
}
```

```
vj2001@VJ:~/ooj-lab$ ./shapes



1] Cylinder
2]Cone
3]Sphere
4]Exit
Enter your choice: 2



Enter the radius and the height: 4 6



The area is 140.811447 and volume is 100.480003

1] Cylinder
2]Cone
3]Sphere
4]Exit
Enter your choice: 4
vj2001@VJ:~/ooj-lab$ ▮
```