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#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("0.1 Cylinder \n 02. Cone \n 03. Sphere \n 0. 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 * r * h) + (2 * 3.14 * r * r);
                v = (3.14 * r * r * h);
                printf("Area: %.f \n Volume: %.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 \n Volume: %.f \n", a, v);
                break;

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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 \n Volume: %f \n", a, v);  
break;
```

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case 0: printf("Exit \n");  
exit(0);
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default: printf("Invalid choice \n");
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}
```

```
{
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return 0;
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}
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