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***PPS-II(Lab-3)***

## 1) Swap two numbers

```
#include <iostream>
void swap(int &a, int &b)
{
   int temp=a;
   a=b;
   b=temp;
}
int main()
{
        int num1, num2;
        std::cin >> num1 >> num2;
        swap(num1,num2);
        std::cout << num1 << " " << num2;
   return 0;
}
```

## 2) Play with numbers

```
#include <iostream>
int &find_smaller(int &a, int &b)
{
   if(a<b)
     return a;
   return b;
}
int main()
{
        int num1, num2;
        std::cin >> num1 >> num2;

        find_smaller(num1, num2) *=2;

        if(num1 > num2)
        std::cout << num1;
        else
        std::cout << num2;

return 0;
}
```

## 3) Find the volume

```
#include <iostream>
#include <string>
using namespace std;
double volume(double a)
{
  return a*a*a;
}
double volume(double a, double b, double c)
{
  return a*b*c;
}
int main()
{
        string shape;
  double d1, d2, d3;

        cin >> shape;
        if('e' == shape[3])
  {
        cin >> d1;
        cout << volume(d1);
  }
        else
  {
        cin >> d1 >> d2 >> d3;
        cout << volume(d1, d2, d3);
  }
return 0;
}
```

## 4) Area of different shapes

```
#include <iostream>
#include <string>
using namespace std;
double volume(double a, char c)
{
  if('c'==c)
  return 3.14*a*a;
return a*a;
}
double volume(double a, double b)
{
  return a*b;
}
```

```
int main()
{
   string shape;
   double d1, d2;
   cin >> shape;

   if('r' == shape[0])
   {
       cin >> d1 >> d2;
       cout << volume(d1,d2);
   }
   else
   {
       cin >> d1;
       cout << volume(d1,shape[0]);
   }
return 0;
}
```