1. Write a program in C++ to print welcome text on a separate line.

```
#include <iostream>
using namespace std;
int main()
{
   cout << "\n\n Print a welcome text in a separate line :\n";
          cout << "-------------------------------------------\n";
   cout << " Welcome to \n" ;
   cout << "ntedu.top"<<endl ;

}
```

2. Write a program in C++ to print the sum of two numbers.

```
#include <iostream>

using namespace std;

int main()
{
   cout << "\n\n Print the sum of two numbers :\n";
          cout << "-----------------------------------\n";
   cout << " The sum of 29 and 30 is : "<< 29+30 <<"\n\n" ;
}
```

3. Write a program in C++ to print the sum of two numbers using variables.

```
#include <iostream>

using namespace std;
int main()
{
   cout << "\n\n Print the sum of two numbers :\n";
          cout << "-----------------------------------\n";

          int a;
          int b;
          int sum;

          a = 29;
          b = 30;
          sum = a + b;

          cout << " The sum of "<< a << " and "<< b <<" is : "<< sum <<"\n\n" ;
    return 0;
}
```

4. Write a C++ program that checks whether primitive values cross the limit.

```
#include <iostream>
using namespace std;

int main()
{
   cout << "\n\n Check whether the primitive values crossing the limits or not :\n";
         cout << "-----------------------------------------------------------------\n";
   char gender = 'F';
   bool isEmployed = true;
   unsigned short numOfsons = 2;
   short yearOfAppt = 2009;
   unsigned int YearlyPackage = 1500000;
   double height = 79.48;
   float gpa = 4.69f;
   long totalDrawan = 12047235L;
   long long balance = 995324987LL;


   cout << " The Gender is : " << gender << endl;
   cout << " Is she married? : " << isEmployed << endl;
   cout << " Number of sons she has : " << numOfsons << endl;
   cout << " Year of her appointment : " << yearOfAppt << endl;
   cout << " Salary for a year : " << YearlyPackage << endl;
   cout << " Height is : " << height << endl;
   cout << " GPA is " << gpa << endl;
   cout << " Salary drawn up to : " << totalDrawan << endl;
   cout << " Balance till : " << balance << endl;

   return 0;
}
```

5. Write a C++ program to print the results of the specified operations.

```
#include <iostream>
using namespace std;

int main()
{
   cout << "\n\n Check whether the primitive values crossing the limits or not :\n";
         cout << "-----------------------------------------------------------------\n";
   char gender = 'F';
   bool isEmployed = true;
   unsigned short numOfsons = 2;
```

```
   short yearOfAppt = 2009;
   unsigned int YearlyPackage = 1500000;
   double height = 79.48;
   float gpa = 4.69f;
   long totalDrawan = 12047235L;
   long long balance = 995324987LL;


   cout << " The Gender is : " << gender << endl;
   cout << " Is she married? : " << isEmployed << endl;
   cout << " Number of sons she has : " << numOfsons << endl;
   cout << " Year of her appointment : " << yearOfAppt << endl;
   cout << " Salary for a year : " << YearlyPackage << endl;
   cout << " Height is : " << height << endl;
   cout << " GPA is " << gpa << endl;
   cout << " Salary drawn up to : " << totalDrawan << endl;
   cout << " Balance till : " << balance << endl;

   return 0;
}
```

6. Write a C++ program that swaps two numbers.

```
#include <iostream>

using namespace std;

int main()
{
        cout << "\n\n Swap two numbers :\n";
        cout << "----------------------\n";

        int num1, num2, temp;
        cout << " Input 1st number : ";
        cin >> num1 ;

        cout << " Input 2nd number : ";
        cin >> num2;

        temp = num2;
        num2 = num1;
        num1 = temp;

   cout << " After swapping the 1st number is : "<< num1 <<"\n" ;
   cout << " After swapping the 2nd number is : "<< num2 <<"\n\n" ;

        return 0;
}
```

7. Write a C++ program that calculates the volume of a sphere.

```
#include <iostream>

using namespace std;

int main()
{
   int rad1;
   float volsp;
   cout << "\n\n Calculate the volume of a sphere :\n";
   cout << "---------------------------------------\n";

   cout << " Input the radius of a sphere : ";
   cin >> rad1;

   volsp = (4 * 3.14 * rad1 * rad1 * rad1) / 3;

   cout << " The volume of a sphere is : "<< volsp << endl;
   cout << endl;

   return 0;
}
```

8. Write a C++ program that calculates the volume of a cube.

```
#include <iostream>

using namespace std;

int main()
{
   int sid1;
   float volcu;
   cout << "\n\n Calculate the volume of a cube :\n";

   cout << "---------------------------------------\n";

   cout << " Input the side of a cube : ";
   cin >> sid1;

   volcu = (sid1 * sid1 * sid1);
```

```
   cout << " The volume of a cube is : "<< volcu << endl;
   cout << endl;
  return 0;
}
```

9. Write a C++ program to find the Area and Perimeter of a Rectangle.

```
#include <iostream>

using namespace std;

int main()
{
   int width, lngth, area, peri;

   cout << "\n\n Find the Area and Perimeter of a Rectangle :\n";
   cout << "-------------------------------------------------\n";

   cout << " Input the length of the rectangle : ";
   cin >> lngth;

   cout << " Input the width of the rectangle : ";
   cin >> width;

   area = (lngth * width);
   peri = 2 * (lngth + width);

   cout << " The area of the rectangle is : "<< area << endl;
   cout << " The perimeter of the rectangle is : "<< peri << endl;
   cout << endl; // Outputting a blank line for better readability

   return 0;
}
```

10. Write a program in C++ to convert temperature in Kelvin to Fahrenheit.

```
#include <iostream>

using namespace std;

int main()
{
   float kel, frh;
```

```
    cout << "\n\n Convert temperature in Kelvin to Fahrenheit :\n";
    cout << "-------------------------------------------------\n";

    cout << " Input the temperature in Kelvin : ";
    cin >> kel;

    frh = (9.0 / 5) * (kel - 273.15) + 32;

    cout << " The temperature in Kelvin    : " << kel << endl;
    cout << " The temperature in Fahrenheit : " << frh << endl;
    cout << endl;

    return 0;
}
```

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