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

Output:

Print the sum of two numbers :

The sum of 29 and 30 is : 59

>>>

```cpp
#include <iostream> using
namespace std;
int main()
{    int i = 29;
int j = 30;    int
sum = i + j;
   cout << "sum:" << sum << endl;


   return 0;
}
```

Output:

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output> & .\'intro.exe' sum

of 29 And 30 is =59

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output>

2) Write a program which asks for length and width of a rectangle and calculates the area and perimeter

>>>

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

int length, width, area; int
main()
{
   cout << " enter the lenth of rectangle" << endl;
cin >> length;    cout << " enter the width of
rectangle" << endl;    cin >> width;

   area = length * width;    cout << "area
of rectangle is: " << area;    return 0;
}
```

Output:

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output> & .\'intro.exe'

enter the lenth of rectangle

10 enter the width of

rectangle

5 area of rectangle is:

50

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output>

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

>>>

```cpp
#include <iostream> using
namespace std;
int main()
{
    cout << " " << endl;
cout << "welcome";
    return 0;
}
```

Output:

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output> & .\'intro.exe'

welcome

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output>

4) Write a in C++ program to find the size of fundamental data types.

Sample Output:

Find Size of fundamental data types :

The sizeof(char) is : 1 bytes

The sizeof(short) is : 2 bytes

The sizeof(int) is : 4 bytes

The sizeof(long) is : 8 bytes

The sizeof(long long) is : 8 bytes

The sizeof(float) is : 4 bytes

The sizeof(double) is : 8 bytes

The sizeof(long double) is : 16 bytes

The sizeof(bool) is : 1 bytes

>>>

```cpp
#include <iostream>
using namespace std; int
main()
{
    cout << "Find Size of fundamental data types" << endl;    cout << "The size of
(char) : " << sizeof(char) << " bytes " << endl;    cout << "The size of (short) : " <<
sizeof(short) << " bytes " << endl;    cout << "The size of (int) : " << sizeof(int) << "
bytes " << endl;    cout << "The size of (long) : " << sizeof(long) << " bytes " <<
endl;    cout << "The size of (long long) : " << sizeof(long long) << " bytes " <<
endl;    cout << "The size of (float) : " << sizeof(float) << " bytes " << endl;    cout
<< "The size of (double) :" << sizeof(double) << " bytes " << endl;    cout << "The
size of (ong double) : " << sizeof(long double) << " bytes " << endl;    cout << "The
size of (bool) : " << sizeof(bool) << " bytes " << endl;    return 0;
}
```

Output:

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output> & .\'intro.exe'

Find Size of fundamental data types

The size of (char) : 1 bytes

The size of (short) : 2 bytes

The size of (int) : 4 bytes

The size of (long) : 4 bytes

The size of (long long) : 8 bytes

The size of (float) : 4 bytes

The size of (double) :8 bytes

The size of (ong double) : 12 bytes

The size of (bool) : 1 bytes

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output>

5) Write a in C++ program to check the upper and lower limits of integers.

Expected Output:

Check the upper and lower limits of integer :

The maximum limit of int data type : 2147483647

The minimum limit of int data type : -2147483648

The maximum limit of unsigned int data type : 4294967295

The maximum limit of long long data type : 9223372036854775807

The minimum limit of long long data type : -9223372036854775808

The maximum limit of unsigned long long data type : 18446744073709551615

The Bits contain in char data type : 8

The maximum limit of char data type : 127

The minimum limit of char data type : -128

The maximum limit of signed char data type : 127

The minimum limit of signed char data type : -128

The maximum limit of unsigned char data type : 255

The minimum limit of short data type : -32768

The maximum limit of short data type : 32767

The maximum limit of unsigned short data type : 65535

>>>

```cpp
#include <iostream>
#include <climits> using
namespace std; int
main()
{
cout << "Check the upper and lower limits of integer :" << endl; cout << "The
maximum limit of int data type : " << INT_MAX << endl; cout<<"The minimun limit of
int data type : "<< INT_MIN <<endl; cout<<"The maximun limit of unsigned data type :
"<< UINT_MAX <<endl; cout<<"The maximun limit of long long data type :
"<<LLONG_MAX <<endl; cout<<"The minimun limit of long long data type :
"<<LLONG_MIN <<endl; cout<<"The maximun limit of unsigned long long data type :
"<<ULLONG_MAX <<endl; cout<<"The Bit contain in char data type :
"<<CHAR_BIT<<endl; cout<<"The maximum limit of char data type :
"<<CHAR_MAX<<endl; cout<<"The minimum limit of char data type :
"<<CHAR_MIN<<endl; cout<<"The maximum limit of signed char data type :
"<<SCHAR_MAX<<endl; cout<<"The minimum limit of signe char data type :
"<<SCHAR_MIN<<endl; cout<<"The maximum limit of unsigned char data type :
"<<UCHAR_MAX<<endl; cout<<"The minimun limit of short data type :
"<<SHRT_MIN<<endl; cout<<"The maximum limit of short data type :
"<<SHRT_MAX<<endl; cout<<"The maximun limit of unsigned short data type :
"<<USHRT_MAX<<endl;
return 0;
}
```

Output:

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output> & .\'intro.exe'
Check the upper and lower limits of integer :

The maximum limit of int data type : 2147483647

The minimun limit of int data type : -2147483648

The maximun limit of unsigned data type : 4294967295

The maximun limit of long long data type : 9223372036854775807

The minimun limit of long long data type : -9223372036854775808

The maximun limit of unsigned long long data type : 18446744073709551615

The Bit contain in char data type : 8

The maximum limit of char data type : 127

The minimum limit of char data type : -128

The maximum limit of signed char data type : 127

The minimum limit of signe char data type : -128

The maximum limit of unsigned char data type : 255

The minimun limit of short data type : -32768

The maximum limit of short data type : 32767

The maximun limit of unsigned short data type : 65535

PS C:\Users\bhoja\OneDrive\Desktop\Cdac-2\CPP\output>