Assignment of c++ programming

Range of assignment 1-15 programs

1. Program that display the first 10 natural numbers:

#include<iostream>

using namespace std;

int main()

{

 for(int i = 1; i<=10; i++)

 {

 cout<<i;

 }

 cout<<endl;

 return 0;

}

1. Program that display the first 10 natural number and their sums:

#include<iostream>

using namespace std;

int main()

{

 cout<<"The First 10 Natural Number : ";

 int j, sum = 0;

 for(j = 1; j <= 10; j++)

 {

 sum = sum +j;

 cout<<j;

 }

 cout<<" The Sum Is : "<<sum<<endl;

}

1. Program that display the entered natural number and their sums

#include<iostream>

using namespace std;

int main()

{

 int i, n, sum=0;

 cout<<"Input Value Of Terms : ";

 cin>>n;

 cout<<"The First Natural Number Is : "<<n<<endl;

 for(i = 1; i <= n; i++)

 {

 cout<<i;

 sum+=i;

 }

 cout<<" The Sum Of Natural Numbers Up To Terms : "<<sum<<endl;

}

1. Program that display sum of 10 natural number and their average

 #include<iostream>

using namespace std;

int main()

{

 int i, n, sum=0;

 float avg;

 cout<<"Input The 10 Numbers :"<<endl;

 for(i = 1; i <= 10; i++)

 {

 cout<<"Number - "<<i<< ":";

 cin>>n;

 sum+=n;

 }

 avg=sum/10.0;

 cout<<" The Sum oF 10 No Is : "<<sum<<" The Average Is : "<<avg;

}

1. #include <iostream>
2. using namespace std;
3. int main()
4. {
5. int i, ctr, cub;
6. cout << "\n\n Display the cube of the numbers upto a given integer:\n";
7. cout << "----------------------------------------------------------\n";
8. cout << "Input the number of terms : ";
9. cin >> ctr;
10. for (i = 1; i <= ctr; i++)
11. {
12. cub = i \* i \* i;
13. cout << "Number is : " << i << " and the cube of " << i << " is: " << cub << endl;
14. }
15. }
16. Program that display multiplication of 15x1-15x10:

 #include<iostream>

using namespace std;

int main()

{

 int x = 15;

 int Multi = 0;

 for(int y = 1; y <= 10; y++)

 {

 Multi = x\*y;

 cout<<x<<" x "<<y<<" = " <<Multi<<endl;

 }

}

1. Program that display multiplication from1 to n data:

#include<iostream>

using namespace std;

int main()

{

 int j;

 int i;

 int n;

 int Multi = 0;

 cout<<"Input Up To The Table Number Starting From 1 : ";

 cin>>n;

 cout<<"Multiplication Table From 1 Up To "<<n;

 for(i = 1; i <= 10; i++)

 {

 for(j = 1; j <= n; j++)

 {

 if(j<=n+1)

 Multi = i\*j;

 cout<<" "<<i<<" x "<<j<<" = " <<Multi<<endl;

 }

 cout<<endl;

}

}

1. Program that display odd number and their sum:

#include<iostream>

using namespace std;

int main()

{

int i;

int n;

int sum = 0;

cout<<"Input Number Of Term : ";

cin>>n;

cout<<"\nThe Odd Numbers Are : ";

for(i = 1; i <= n; i++)

{

 cout<<2\*i-1;

 sum+= 2\*i-1;

}

cout<<" \nThe Sum Of Odd Natural Number Up To Terms: " <<sum<<endl;

}

1. Program that display pattern like right angle triangle:

#include<iostream>

using namespace std;

int main()

{

int i;

int j;

int m = 0;

cout<<"Input Number Of Rows : ";

cin>>m;

for(i = 1; i <= m; i++)

{

 for(j = 1; j <= i; j++)

 cout<<"\*";

 cout<<endl;

}

}

1. Program that display right angle with a number:

#include<iostream>

using namespace std;

int main()

{

int i;

int x;

int m;

cout<<"Input Number Of The Rows : ";

cin>>m;

for(i = 1; i <= m; i++)

{

 for(x = 1; x <= i; x++)

 cout<<x;

 cout<<endl;

 }

1. Program that display right angle which repeats the row number:

#include<iostream>

using namespace std;

int main()

{

int i;

int x;

int m;

cout<<"Input Number Of The Rows : ";

cin>>m;

for(i = 1; i <= m; i++)

{

 for(x = 1; x <= i; x++)

 cout<<i;

 cout<<endl;

}

}

1. Program that display right angle which increased by1:

#include<iostream>

using namespace std;

int main()

{

int i;

int x;

int m;

int k = 1;

cout<<"Input Number Of The Rows : ";

cin>>m;

for(i = 1; i <= m; i++)

{

 for(x = 1; x <= i; x++)

 cout<<k++;

 cout<<endl;

}

}

1. Program that display such pattern like pyramid which increased by 1:

#include<iostream>

using namespace std;

int main()

{

int i;

int x;

int m;

int k;

int t = 1;

int y;

cout<<"Input Number Of The Rows : ";

cin>>m;

y = m + 9 - 6;

for(i = 1; i <= m; i++)

{

 for(k = y; k >= 1; k--)

 {

 cout<<" ";

 }

 for(x = 1; x <= i; x++)

 cout<<t++;

 cout<<endl;

 y--;

}

}

1. Program that display pattern like pyramid which asterisk :

#include <iostream>

using namespace std;

int main()

{

 int rows;

 cout << "Enter number of rows: ";

 cin >> rows;

 for(int i = rows; i >= 1; --i)

 {

 for(int j = 1; j <= i; ++j)

 {

 cout << j << " ";

 }

 cout << endl;

 }

 return 0;

}

1. Program that tests the factorial of given numbers:

#include<iostream>

using namespace std;

int main()

{

int i;

int f = 1;

int num;

cout<<"Input The Number : ";

cin>>num;

for(i = 1; i <= num; i++)

 f = f\*i;

{

 cout<<"The Factorial Of The Number Is : "<<num<<" ! " << " = "<<f<<endl;

}

}