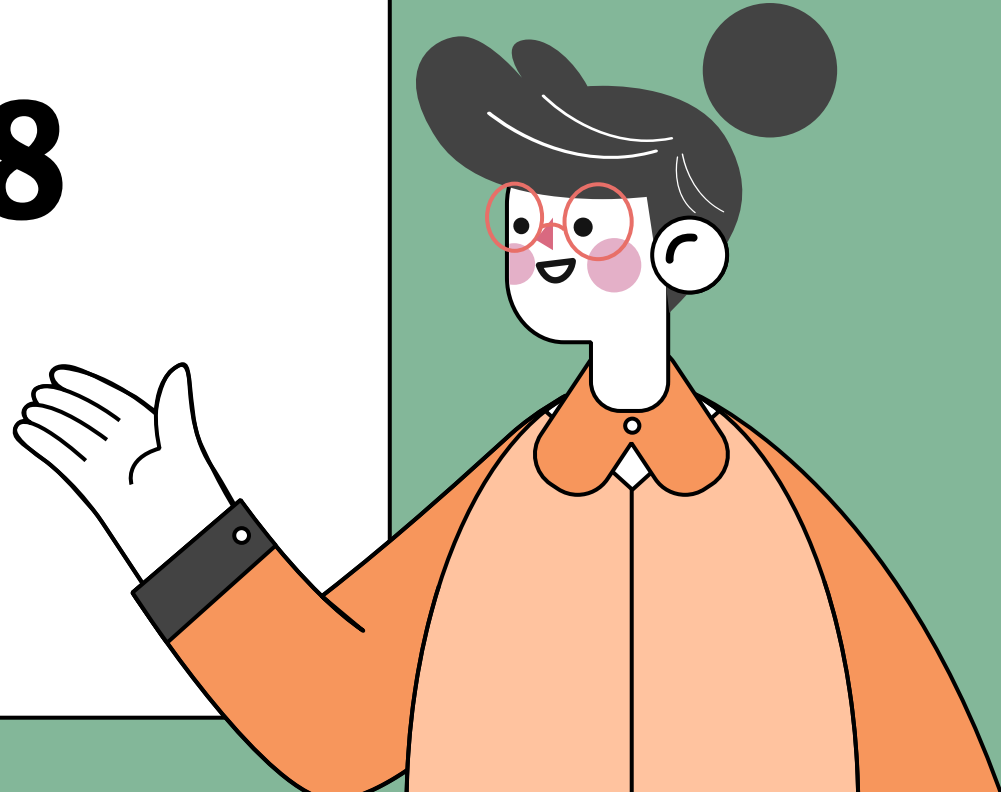


GROUP 8

ACTIVITY 2



GROUP8 BSIT-1B

Leader:

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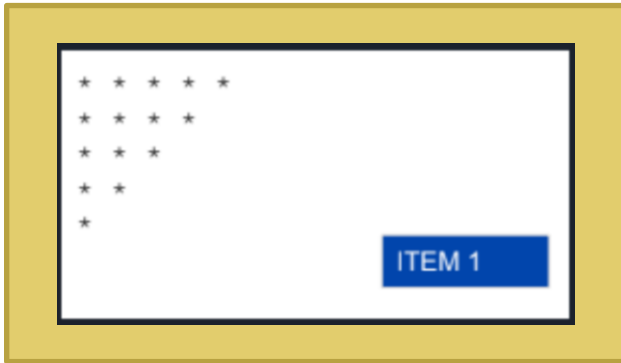
Salandanan, Ace Vincent Y.





ITEM 1

Create a program for the given output:



```

#include <iostream>
using namespace std;

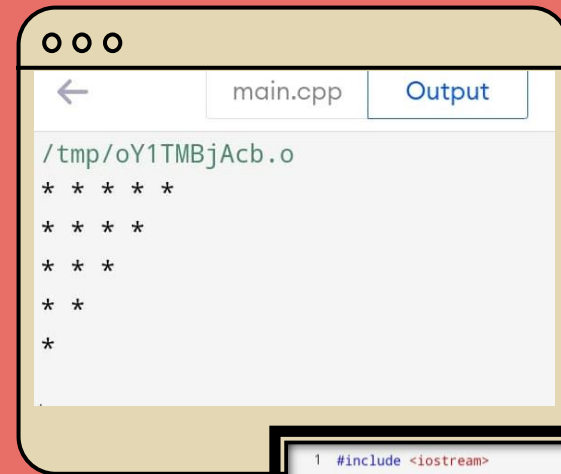
int main()
{
    int row, column;
    int Rownum = 5;

    for(row = Rownum; row >= 1; row--)
    {
        // row = 5 -> decreases per loop (outer for loop)

        for(column = 1; column <= row; column++)
        {
            // column = 1 -> increases per loop
            // (inner for loop) "printing loop"

            cout << "* ";
        }
        cout << endl;
    }
    cout << endl;
}

```



```

/tmp/oY1TMBjAcb.o
* * * * *
* * * *
* * *
* *
*

```



```

1 #include <iostream>
2 using namespace std;
3
4 int main() {
5     int row, column;
6     int Rownum = 5;
7
8     for(row = Rownum; row >= 1; row--)
9     {
10         // row = 5 ->
11         // decreases per loop (outer
12         // for loop)
13         for(column = 1; column <= row;
14             column++) {
15             // column = 1 -> increases
16             // per loop (inner for loop)
17             // "printing loop"
18             cout << "* ";
19
20         }
21         cout << endl;
22     }
23     cout << endl;
24 }

```

Run



ITEM 2

Create a program for the given output:





```
/tmp/bB6opB5zZ0.o
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
|
```

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

int main ()
{
    int row = 5;
    for (int i =1; i <=row; ++i)
    {
        for(int j=1; j<=i;++j)
        {
            cout<<j<<" ";
        }
        cout<<"\n";
    }
    return 0;
}
```

```
1 // Online C++ compiler to run C++ program online
2 #include <iostream>
3 using namespace std;
4 int main() {
5     int row = 5;
6     for (int i=1; i<=row; ++i){
7         for (int j=1; j <= i; ++j){
8             cout<<j<<" ";
9
10        }
11        cout<<"\n";
12    }
13
14    return 0;
15 }
```




ITEM 3

Create a program for the given output:



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

int main ()
{
    int row = 5;
    for (int i=5; i<=row; --i)
    {
        for (int j=1; j <= i; ++j)
        {
            cout<<j<<" ";
        }
        cout<<"\n";
    }
    return 0;
}
```



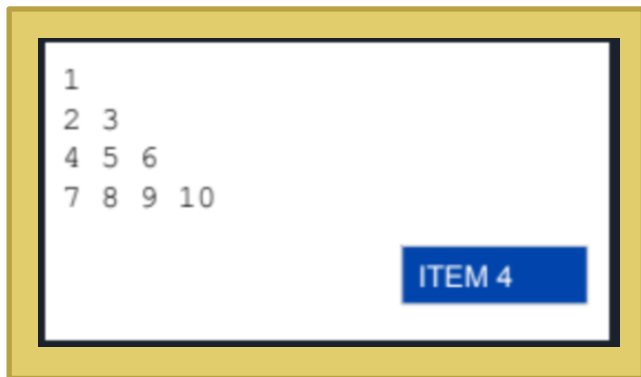
/tmp/b0ES0AZKWE.o
12345
1234
123
12
1

```
1 #include <iostream>
2 using namespace std;
3 int main () {
4     int row = 5;
5     for (int i=5; i<=row; --i){
6         for (int j=1; j <= i; ++j){
7             cout<<j<<" ";
8         }
9         cout<<"\n";
10    }
11 }
12
13     return 0;
14 }
```




ITEM 4

Create a program for the given output:





```
Microsoft Visual Studio Debug
1
2 3
4 5 6
7 8 9 10
```

```
int main()
{
    int i = 1;

    // row
    for (int j = 1; j <= 4; j++) {
        //column
        for (int k = 1; k <= j; k++)
        {
            cout << i << " ";
            i++;
        }

        cout << "\n";
    }

    return 0;
}
```

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

int main()
{
    int i = 1;

    for (int j = 1; j <= 4; j++)
    {
        for (int k = 1; k <= j; k++)
        {
            cout << i << " "; i++;
        }
        cout << "\n";
    }

    return 0;
}
```



ITEM 5

Create a program to find the
square root of a number



A stylized illustration of a terminal window with a yellow title bar and three window control buttons. The title bar text is 'C:\Users\HP\Documents\dev-c++\number1.exe'. The terminal has a black background with white text showing the program's output.

```
C:\Users\HP\Documents\dev-c++\number1.exe
Enter a number: 25
The square root of 25 is 5.
```

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

```
double square(double num) {
    return sqrt(num);
}
```

```
int main()
{
    double num1;

    cout << "Enter a number: ";
    cin >> num1;
    cout << "The square root of " << num1
    << " is " << square(num1) << "." << endl;

    return 0;
}
```

```
1 #include <iostream>
2 using namespace std;
3 #include <cmath>
4
5 double square(double num) {
6     return sqrt(num);
7 }
8
9 int main()
10 {
11     double num1;
12
13     cout << "Enter a number: ";
14     cin >> num1;
15     cout << "The square root of " << num1 << " is " << square(num1) << "." << endl;
16
17     return 0;
18 }
19
```



ITEM 6

Create a program to compute
quotient and remainder
(enter dividend and divisor)



```

#include <iostream>
using namespace std;

int quo(int a, int b) {
    return (a/b);
}

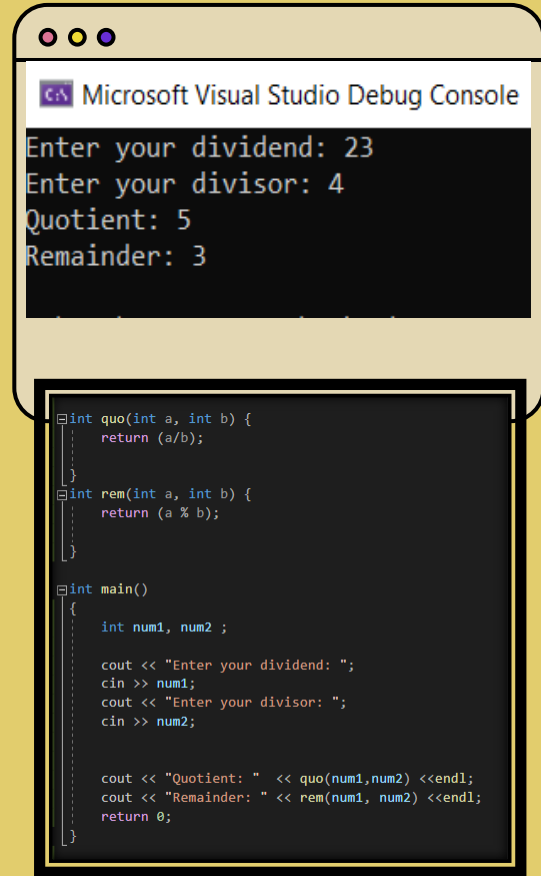
int rem(int a, int b) {
    return (a % b);
}

int main()
{
    int num1, num2 ;

    cout << "Enter your dividend: ";
    cin >> num1;
    cout << "Enter your divisor: ";
    cin >> num2;

    cout << "Quotient: " << quo(num1,num2) << " " << endl;
    cout << "Remainder: " << rem(num1, num2) << " " << endl;
    return 0;
}

```



The image shows a Microsoft Visual Studio Debug Console window. The console output displays the results of a program execution: "Enter your dividend: 23", "Enter your divisor: 4", "Quotient: 5", and "Remainder: 3". Below the console window, a code editor snippet is visible, showing the C++ code for the quotient and remainder functions and the main function. The code is as follows:

```

int quo(int a, int b) {
    return (a/b);
}

int rem(int a, int b) {
    return (a % b);
}

int main()
{
    int num1, num2 ;

    cout << "Enter your dividend: ";
    cin >> num1;
    cout << "Enter your divisor: ";
    cin >> num2;

    cout << "Quotient: " << quo(num1,num2) << endl;
    cout << "Remainder: " << rem(num1, num2) << endl;
    return 0;
}

```

