

Q.3 WAP to generate the following set of Output.

a)

```

    1
   2 3
  4 5 6
  
```

b)

```

    1
   1 1
  1 2 1
  1 3 3 1
  1 4 6 4 1
  
```

a)

# include <stdio.h>

```

int main () {
    int i, j, num=1;
  
```

```

    for (i=1 ; i<=3 ; i++) {
        for (j=1 ; j<=i ; j++) {
            printf ("%d", num);
            num++;
        }
    }
  
```

```

    printf ("\n");
}
  
```

```

return 0;
}
  
```

Remarks:

Teacher's Signature \_\_\_\_\_

6) #include <stdio.h>

```
int main() {
    int rows, i, j, num;
```

```
printf ("Enter number of rows ; ");
scanf ("%d", &rows);
```

```
for (i=0 ; i < rows ; i++) {
    num = 1;
    for (j=0 ; j < i ; j++) {
        printf ("%d", num);
        num = num * (i-j) / (j+1);
    }
    printf ("\n");
}
```

return 0;

Online Compiler

main.c

```
1 #include <stdio.h>
2
3 int main() {
4     int i, j, num = 1;
5
6     for (i = 1; i <= 3; i++) {
7         for (j = 1; j <= i; j++) {
8             printf("%d ", num);
9             num++;
10        }
11        printf("\n");
12    }
13
14    return 0;
15 }
```

Output

```
1
2 3
4 5 6
==== Code Execution Successful ===
```

The image shows a screenshot of an online C compiler interface. The code in the editor is a C program that prints a triangular pattern of numbers. The output window shows the printed numbers and a success message. The interface includes standard operating system icons in the dock at the bottom.

Online Compiler

main.c

```
1 #include <stdio.h>
2
3 int main() {
4     int rows, i, j, num;
5
6     printf("Enter number of rows: ");
7     scanf("%d", &rows);
8
9     for (i = 0; i < rows; i++) {
10         num = 1;
11         for (j = 0; j <= i; j++) {
12             printf("%d ", num);
13             num = num * (i - j) / (j + 1);
14         }
15         printf("\n");
16     }
17
18     return 0;
19 }
```

Run Output Clear

Enter number of rows: 5

1  
1 1  
1 2 1  
1 3 3 1  
1 4 6 4 1

== Code Execution Successful ==

The screenshot shows a web-based C compiler interface. In the code editor, a file named 'main.c' contains a program that prints a right-angled triangle of numbers. The user has entered '5' as the number of rows. The output window shows the printed pattern and a success message. The Mac OS X dock at the bottom is visible, featuring icons for Mail, Calendar, Messages, Safari, Stocks, Camera, Compass, iTunes, App Store, Wallet, System Preferences, and Finder.