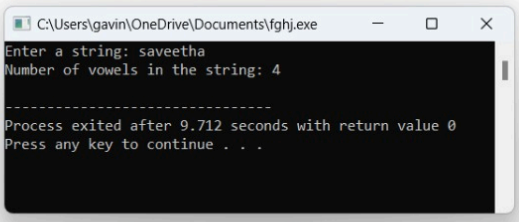
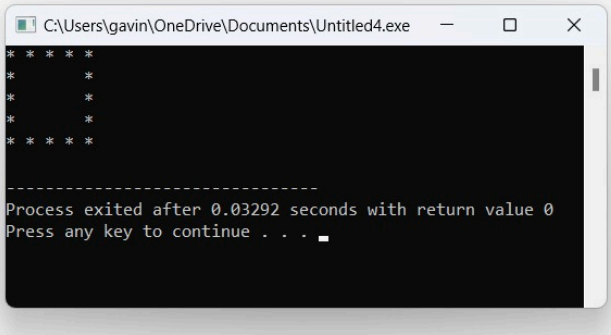
pattern 4 assi7.cpp fghj.cpp

```c
#include <stdio.h>
#include <string.h>

int main() {
    char str[100];
    int vowels = 0, i;

    printf("Enter a string: ");
    fgets(str, 100, stdin);

    for(i = 0; i < strlen(str); i++) {
        if(str[i] == 'a' || str[i] == 'e' || str[i] == 'i' || str[i] == 'o' || str[i] == 'u' || str[i] == 'A' || str[i] == 'E' || str[i] == 'I' ||
            vowels++;
    }

    printf("Number of vowels in the string: %d\n", vowels);

    return 0;
}
```

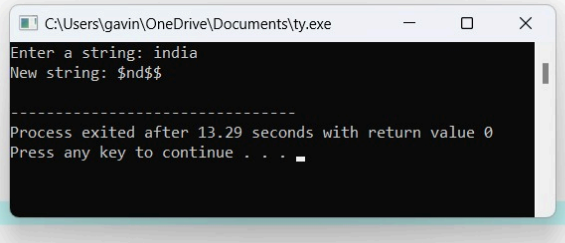


```c
{
    int rows = 5;

    // outer loop to iterator through each row
    for (int i = 0; i < rows; i++) {

        // inner loop to print * star in each row
        for (int j = 0; j < rows; j++) {
            // statement to check boundry condition
            if (i > 0 && i < rows - 1 && j > 0
                && j < rows - 1) {
                printf("  ");
            }
            else {
                printf("* ");
            }
        }
        printf("\n");
    }
    return 0;
}
```



jjh assi7.cpp | [*] Untitled12.cpp | ty.cpp

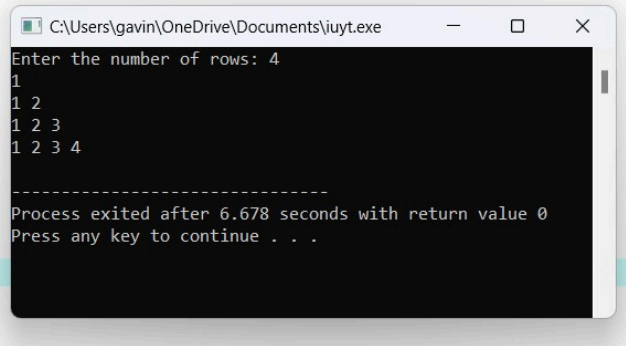
```c
#include <stdio.h>
#include <string.h>

int main() {
    char str[100];
    printf("Enter a string: ");
    fgets(str, sizeof(str), stdin);

    for(int i = 0; i < strlen(str); i++) {
        switch(str[i]) {
            case 'a':
            case 'e':
            case 'i':
            case 'o':
            case 'u':
                str[i] = '$';
                break;
            default:
                continue;
        }
    }

    printf("New string: %s", str);
    return 0;
}
```



Compile Log | Debug | Find Results | Close

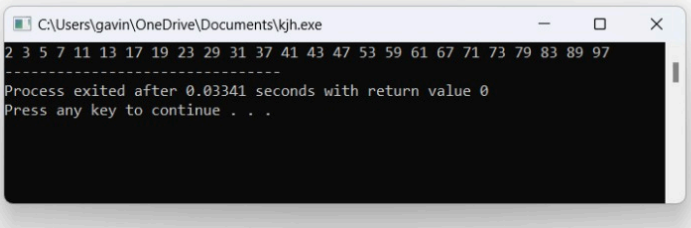
iuyt.cpp

```c
#include <stdio.h>

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

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

    for (i = 1; i <= rows; i++) {
        for (j = 1; j <= i; j++) {
            printf("%d ", j);
        }
        printf("\n");
    }

    return 0;
}
```



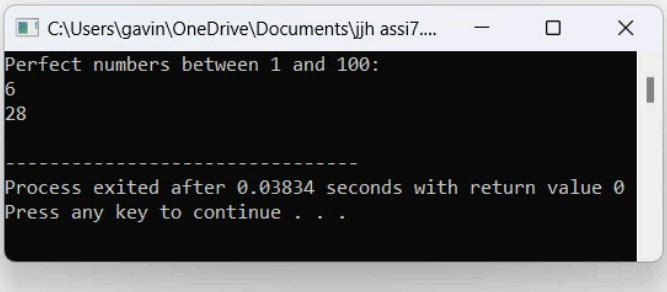
kjh.cpp

```c
int main() {
    int i, j, is_prime;

    // Loop through all numbers from 1 to 100
    for (i = 1; i <= 100; i++) {
        // Assume the number is prime
        is_prime = 1;

        // Check if it's divisible by any number from 2 to i-1
        for (j = 2; j < i; j++) {
            if (i % j == 0) {
                is_prime = 0;
                break;
            }
        }

        // If it's prime, print it out
        if (is_prime && i != 1) {
            printf("%d ", i);
        }
    }

    return 0;
}
```



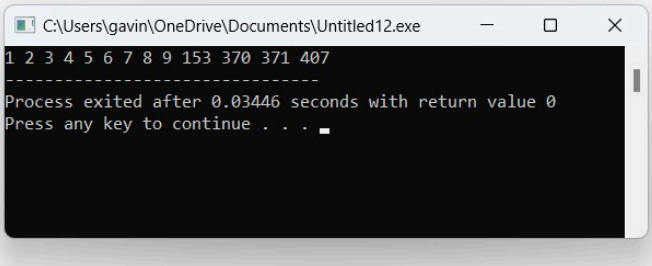
jjh assi7.cpp

```c
#include <stdio.h>

int main() {
    int i, j, sum;
    printf("Perfect numbers between 1 and 100: \n");

    for(i=1; i<=100; i++) {
        sum = 0;
        for(j=1; j<i; j++) {
            if(i % j == 0) {
                sum += j;
            }
        }
        if(sum == i) {
            printf("%d\n", i);
        }
    }
    return 0;
}
```



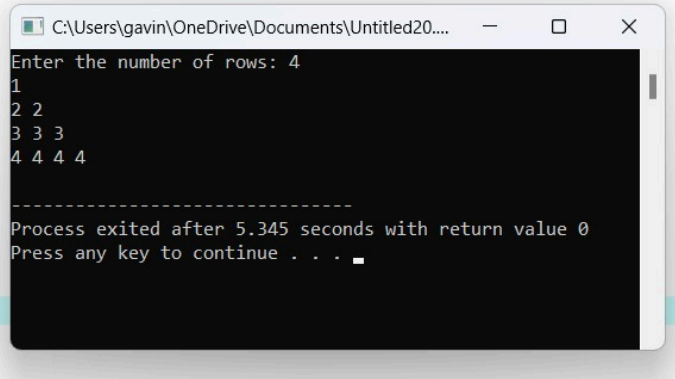
jjh assi7.cpp | Untitled12.cpp

```c
#include <stdio.h>
#include <math.h>

int main() {
    int num, originalNum, remainder, n = 0, result = 0;
    for(num = 1; num <= 500; num++) {
        originalNum = num;

        // counting number of digits
        while (originalNum != 0) {
            originalNum /= 10;
            ++n;
        }

        originalNum = num;

        // result contains sum of nth power of individual digits
        while (originalNum != 0) {
            remainder = originalNum % 10;
            result += pow(remainder, n);
            originalNum /= 10;
        }

        // checking if number is equal to the sum of nth power of individual digits
        if (result == num) {
            printf("%d ", num);
        }

        // resetting values for the next iteration
        n = 0;
        result = 0;
    }

    return 0;
}
```

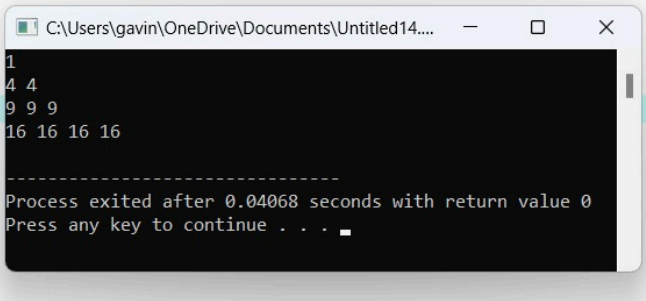


jjh assi7.cpp | [*] Untitled12.cpp | ty.cpp | Untitled14.cpp | Untitled16.cpp | Untitled17.cpp | [*] Untitled18.cpp | Untitled19.cpp | Untitled20.cpp

```c
#include <stdio.h>

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

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

    for (i = 1; i <= rows; i++) {
        for (j = 1; j <= i; j++) {
            printf("%d ", i);
        }
        printf("\n");
    }

    return 0;
}
```



```c
#include <stdio.h>

int main() {
    int i, j, num = 1;
    for(i = 1; i <= 4; i++) {
        for(j = 1; j <= i; j++) {
            printf("%d ", num*num);
        }
        printf("\n");
        num++;
    }
    return 0;
}
```



jjh assi7.cpp | [*] Untitled12.cpp | ty.cpp | Untitled14.cpp | Untitled16.cpp | Untitled17.cpp | [*] Untitled18.cpp | Untitled19

```c
#include <stdio.h>
#include <conio.h>
int main() {
    int i,j,k,t=0;

    for (i=1; i<=5; i++) {
        for (k=t; k<5; k++) {
            printf(" ");
        }
        for (j=0; j< i; j++) {
            printf(" * ");
            t = t + 1;
        }
        printf("\n");
    }
    getch();
}
```