pattern.c

```c
#include<stdio.h>
int main() {

    int n;
    scanf("%d",&n);

    int num = 1;

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

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```
Last login: Tue Sep 22 21:11:52 on ttys000
/Users/dhruvdubey/Desktop/JavaLab/pattern ; exit;
dhruvdubey@Dhruvs-MacBook-Air ~ % /Users/dhruvdubey/Desktop/JavaLab/pattern ; exit;
6
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
16 17 18 19 20 21

[Process completed]
```

Scanned with CamScanner

grade.c

```c
#include<stdio.h>
int main() {
    int cie_marks;
    int see_marks;
    float marks;

    printf("Enter the CIE marks of the student(out of 50) : ");
    scanf("%d",&cie_marks);
    printf("Enter the SEE marks of the student(out of 100) : ");
    scanf("%d",&see_marks);

    marks = cie_marks + (float)(see_marks/2);
    printf("Student scored a total of %f marks\n",marks);
    printf("Grade scored : ");
    if(marks>=90) {
        printf("S\n");
    }
    else if(marks>=80) {
        printf("A\n");
    }
    else if(marks>=70) {
        printf("B\n");
    }
    else if(marks>=60) {
        printf("C\n");
    }
    else if(marks>=50) {
        printf("D\n");
    }
    else if(marks>=40) {
        printf("E\n");
    }
    else
        printf("F\n");
```

Scanned with CamScanner

```
Last login: Tue Sep 22 21:12:21 on ttys000
dhruvdubey@Dhruvs-MacBook-Air ~ % /Users/dhruvdubey/Desktop/JavaLab/grade ; exit;
Enter the CIE marks of the student(out of 50) : 37
Enter the SEE marks of the student(out of 100) : 80
Student scored a total of 77.000000 marks
Grade scored : B

[Process completed]
```

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AreaOfShape.c

```c
#include<stdio.h>
#include<math.h>
void cal_Cone(float r,float h) {
    float a,v;//a for area , v for volume
    a = (3.14)*r*(r+sqrt(h*h + r*r));
    v = ((3.14)*r*r*h)/3;
    printf("Area and volume of the cone are %f and %f respectively",a,v);
}

void cal_cylinder(float r,float h) {
    float a,v;
    a = 2*3.14*r*(h+r);
    v = 3.14*r*r*h;
    printf("Area and volume of the cylinder are %f and %f respectively",a,v);
}

void cal_sphere(float r) {
    float a,v;
    a = 4*3.14*r*r;
    v = (4*3.14*r*r*r)/3;
    printf("Area and volume of the sphere are %f and %f respectively",a,v);
}

int main() {
    float radius;
    float height;
    int choice;

    printf("Input your selection of shape : \n");
    printf("1.Cone\n2.Cylinder\n3.Sphere\n");
    scanf("%d",&choice);

    switch(choice) {
        case 1:
```

Line 1, Column 1 Tab Size: 4 C

Scanned with CamScanner

AreaOfShape.c

```c
int main() {
    float radius;
    float height;
    int choice;

    printf("Input your selection of shape : \n");
    printf("1.Cone\n2.Cylinder\n3.Sphere\n");
    scanf("%d",&choice);

    switch(choice) {
        case 1:
            printf("Enter the radius : ");
            scanf("%f",&radius);
            printf("Enter the height : ");
            scanf("%f",&height);
            cal_Cone(radius,height);
            break;

        case 2:
            printf("Enter the radius : ");
            scanf("%f",&radius);
            printf("Enter the height : ");
            scanf("%f",&height);
            cal_cylinder(radius,height);
            break;

        case 3:
            printf("Enter the radius : ");
            scanf("%f",&radius);
            cal_sphere(radius);
            break;
    }

}
```

Scanned with CamScanner

```
Last login: Tue Sep 22 21:17:22 on ttys000
/Users/dhruvdubey/Desktop/JavaLab/AreaOfShape ; exit;
dhruvdubey@Dhruvs-MacBook-Air ~ % /Users/dhruvdubey/Desktop/JavaLab/AreaOfShape ; exit;
Input your selection of shape :
1.Cone
2.Cylinder
3.Sphere
2
Enter the radius : 15
Enter the height : 13
Area and volume of the cylinder are 2637.600098 and 9184.500000 respectively
[Process completed]
```

Scanned with CamScanner

primeNum.c

```c
#include<stdio.h>
void findPrimes(int a,int b) {
    int j=2;
    int flag;
    if(a == 1 || a == 0) {
        a = 2;
        if(b>2)
            printf("2 ");
    }
    for(int i = a+1;i < b; i = i+2) {

        flag = 1;

        for (int j = 2; j <= i / 2; ++j) {
            if (i % j == 0) {
                flag = 0;
                break;
            }
        }

        if (flag == 1)
            printf("%d ", i);
    }
}

int main() {
    int num1,num2;
    printf("Enter the first number(smaller of the two): ");
    scanf("%d",&num1);
    printf("Enter the second number(greater of the two): ");
    scanf("%d",&num2);
    findPrimes(num1,num2);

}
```

Line 1, Column 1 Tab Size: 4 C

Scanned with CamScanner

```
Last login: Tue Sep 22 21:15:04 on ttys000
/Users/dhruvdubey/Desktop/JavaLab/primeNum ; exit;
dhruvdubey@Dhruvs-MacBook-Air ~ % /Users/dhruvdubey/Desktop/JavaLab/primeNum ; exit;
Enter the first number(smaller of the two): 20
Enter the second number(greater of the two): 50
23 29 31 37 41 43 47
[Process completed]
```

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