#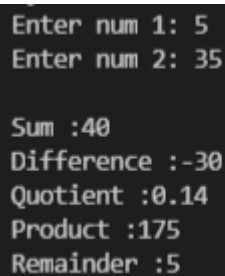 1. Develop a C program to perform arithmetic operations (addition, subtraction,multiplication, division and remainder) on two integers using pointers.

```c
#include<stdio.h>
int ops(int *, int *, int *, int *, int*, float *,int *);
int main()
{
    int a,b; int add,sub,mul,rem; float quo;
    printf("Enter num 1: ");
    scanf("%d",&a);
    printf("Enter num 2: ");
    scanf("%d",&b); ops(&a, &b, &add, &sub, &mul, &quo, &rem);
    printf("\n");
    printf("Sum :%d\n",add);
    printf("Difference :%d\n",sub);
    printf("Quotient :%0.2f\n",quo);
    printf("Product :%d\n",mul);
    printf("Remainder :%d\n",rem);

}
int ops(int *a, int *b, int *add, int *sub, int *mul,float *quo, int *rem)
{
    *add=*a+*b;
    *sub=*a-*b;
    *mul=*a**b;
    *quo=(float)(*a)/(*b);
    *rem=(*a)%(*b);
}
```

OUTPUT:

```
Enter num 1: 5
Enter num 2: 35

Sum :40
Difference :-30
Quotient :0.14
Product :175
Remainder :5
```

2. Illustrate pointers in swapping two numbers.

```c
#include<stdio.h>
int swapptr(int *, int *);
int main()
{
        int a,b;
        printf("Enter two numbers to swap\n");
        scanf("%d %d",&a,&b);
        printf("Before Swapping\n");
        printf("a :%d b :%d\n",a,b);
        swapptr(&a, &b);
        printf("After Swapping\n");
        printf("a :%d b :%d",a,b);
        return 0;
}
int swapptr(int *a, int *b)
{
        int *temp;
        *temp=*a;
        *a=*b;
        *b=*temp;
        return 0;
}
```
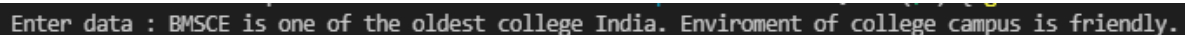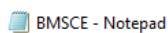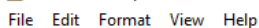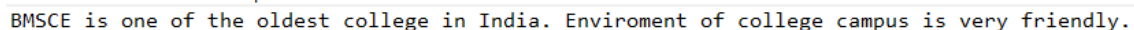
OUTPUT:

```
Enter two numbers to swap
45 65
Before Swapping
a :45 b :65
```

3. Demonstrate how to read data from the keyboard, write it to a file called BMSCE, again read the same data from the BMSCE file, and display it on the screen/console.

```c
#include<stdio.h>
#include<stdlib.h>
int main(){
    FILE *fp;
    char data[100];
    fp = fopen("BMSCE.txt","w");
    if(fp==NULL){
        printf("\nFile could not be opened");
        exit(1);
    }
    printf("Enter data : ");
    gets(data);
    fprintf(fp,"%s",data);

    fscanf(fp,"%s",data);
    printf("Data from file : \n");
    printf("%s\n",data);
    fclose(fp);
}
```

OUTPUT:

Enter data : BMSCE is one of the oldest college India. Enviroment of college campus is friendly.

BMSCE - Notepad
File Edit Format View Help
BMSCE is one of the oldest college in India. Enviroment of college campus is very friendly.