Write a program that accepts the marks in 3 subjects of a student, calculates the average mark of the student and prints the student's grade. If the average mark is greater than or equal to 90, then the grade is 'A'. If the average mark is 80 and between 80 and 90, then the grade is 'B'. If the average mark is 70 and between 70 and 80, then the grade is 'C'. If the average mark is 60 and between 60 and 70, then the grade is 'D'. If the average mark is 50 and between 50 and 60, then the grade is 'E'. If the average mark is less than 50, then the grade is 'F'.

```
#include<stdio.h>
int main()
{
    int m1,m2,m3;
    scanf("%d %d %d",&m1,&m2,&m3);
    int avg=(m1+m2+m3)/3;
    if(avg>=90)
    {
        printf("The grade is A");
    }
    else if(avg>=80 && avg<90)
    {
        printf("The grade is B");
    }
    else if(avg>=70 && avg<80)
    {
        printf("The grade is C");
    }
```

	Input	Expected	Got	
✓	45 45 45	The grade is F	The grade is F	✓
✓	91 95 100	The grade is A	The grade is A	✓

Write a program to determine the type of berth when the seat / berth number in the train is given.

```
#include<stdio.h>
int main()
{
    int seat;
    scanf("%d",&seat);
    seat=seat%8;
    if(seat==1||seat==4)
    {
        printf("Lower");

    }
    else if(seat==2||seat==5)
    {
        printf("Middle");
    }
    else if(seat==3||seat==6)
    {
        printf("Upper");
```

	Input	Expected	Got	
✓	9	Lower	Lower	✓
✓	72	Side Upper	Side Upper	✓

Write a C program to simulate a basic calculator. [+,-,*,/,%]. Use switch statement.

```
#include<stdio.h>
int main()
{
    int a,b,res;
    char op;
    scanf("%d %c %d",&a,&op,&b);
    switch(op)
    {
        case '+':
        res = a+b;
        printf("The sum is %d",res);
        break;
        case '-':
        res = a-b;
        printf("The difference is %d",res);
        break;
        case '*':
        res = a*b;
```

	Input	Expected	Got	
✓	3 + 5	The sum is 8	The sum is 8	✓
✓	7 - 6	The difference is 1	The difference is 1	✓
✓	4 * 3	The product is 12	The product is 12	✓
✓	12 / 3	The quotient is 4	The quotient is 4	✓
✓	4 %	The remainder is 0	The remainder is 0	✓

In london, every year during dasara there will be a very grand doll show. People try to invent new new dolls of different varieties. The best sold doll's creator will be awarded with cash prize. So people broke their head to create dolls innovatively. Knowing this competition, Mr.Lokpaul tried to create a doll which sings only when a even number is pressed and the number should be not be zero and greater than 100.

So write a program to help Mr.Lokpaul to win.

```
#include<stdio.h>
int main()
{
    int num;
    scanf("%d",&num);
    if(num>0 && num<=100)
    {
        if(num%2==0)
        {
            printf("Doll will sing");
        }
        else
        {
            printf("Invalid number");
        }
    }
    else
    {
```

	Input	Expected	Got	
✓	56	Doll will sing	Doll will sing	✓
✓	55	Invalid number	Invalid number	✓