PROGRAM 1

```python
import random
def num_check(n):
    if n in range(0,100):
        print("the given number is in range")
    else:
        print("the given number is not in range")
x=int(input("enter any number:"))
num_check(x)
```

PROGRAM 2

```python
def half(x):
    if x>=10:
        r=x//2
        print("According to the reduce rule the cards must be ",r)
    else:
        print("Enter the valid number which must be greater than 9")

n=int(input("Enter the Number of Cards"))
half(n)
```

PROGRAM 3

```python
import random
n=int(input("enter any number : "))
if n>=0:
    m=10+n
    r=random.randint(n,m)
    print(r)
    print("A " * r)
else:
    print("entered number is negative")
```

PROGRAM 4

```python
lin=float(input("Enter the login time "))
lout=float(input("Enter the logout time "))
if (lin>=0 and lout<24):
    s=lout-lin
    bill=s*5.50
    print("The total bill for the stay of ",int(s))
    print("hours is ",bill)

else:
    print("Enter the valid hour")
```

PROGRAM 5

```python
import random
c=0
for i in range(1,10000):
    d1=random.randint(1,6)
    d2=random.randint(1,6)
    if d1==d2:
        c=c+1
    else:
        pass
print("Number of same occurences is ",c)
print("same occurance percentage is ",c/100,"%")
```