In [58]:
```
import pandas as pd
import random
```

In [59]:
```
check = input("Do you have random numbers ? y/n : ")
if check == 'y':
    RN_list = input('Enter random numbers : ')
    RN_list = RN_list.split()
    RN_list = [int(i) for i in RN_list]
else:
    RN_list = [random.randint(0,9) for i in range(50)]
```

```
Do you have random numbers ? y/n : y
Enter random numbers : 5 4 3 2 1 7 8 6 5 3 9 3 2 1 4 6 7 8
```

In [60]:
```
times = int(input("Enter N : "))
```

```
Enter N : 5
```

In [61]:
```
main_df = pd.DataFrame()
j = 0 ; total_paid = 0 ; total_get = 0
for i in range(times):
    heads = 0; tails = 0; differ = 0; stN = 1
    game = {'St.No':[], 'Random Number':[], 'Head or Tail':[], 'Heads':[], 'Ta
    while differ != 3:
        winOrlose = 8 - stN
        game['St.No'].append(stN)
        RN = RN_list[j%len(RN_list)]
        game['Random Number'].append(RN)
        if RN in range(0,5):
            heads += 1
            game['Head or Tail'].append('H')
        else:
            tails += 1
            game['Head or Tail'].append('T')
        game['Heads'].append(heads)
        game['Tails'].append(tails)
        differ = abs(heads - tails)
        game['Difference'].append(differ)
        j += 1 ; stN += 1 ; total_paid += 1
    total_get += 8
    if winOrlose > 0:
        print("Game Number {} Win {}$".format(i+1,winOrlose))
    else:
        print("Game Number {} Lose {}$".format(i+1,-1*winOrlose))
    new = pd.DataFrame.from_dict(game)
    main_df = main_df.append(new, ignore_index=True)
print("Total Money Paid = {}".format(total_paid))
print("Total Money get = {}".format(total_get))
print("Each game on the average requires = {}".format(total_paid/times))
```

```
Game Number 1 Win 3$
Game Number 2 Win 5$
Game Number 3 Win 1$
Game Number 4 Win 5$
Game Number 5 Win 3$
Total Money Paid = 23
Total Money get = 40
Each game on the average requires = 4.6

C:\Users\Youssef\AppData\Local\Temp\ipykernel_3372\3823776094.py:28: FutureWa
rning: The frame.append method is deprecated and will be removed from pandas
in a future version. Use pandas.concat instead.
  main_df = main_df.append(new, ignore_index=True)
```

In [62]:
```
main_df
```

Out[62]:

	St.No	Random Number	Head or Tail	Heads	Tails	Difference
0	1	5	T	0	1	1
1	2	4	H	1	1	0
2	3	3	H	2	1	1
3	4	2	H	3	1	2
4	5	1	H	4	1	3
5	1	7	T	0	1	1
6	2	8	T	0	2	2
7	3	6	T	0	3	3
8	1	5	T	0	1	1
9	2	3	H	1	1	0
10	3	9	T	1	2	1
11	4	3	H	2	2	0
12	5	2	H	3	2	1
13	6	1	H	4	2	2
14	7	4	H	5	2	3
15	1	6	T	0	1	1
16	2	7	T	0	2	2
17	3	8	T	0	3	3
18	1	5	T	0	1	1
19	2	4	H	1	1	0
20	3	3	H	2	1	1
21	4	2	H	3	1	2
22	5	1	H	4	1	3

In [ ]:
```

```