U=[]

A=[]

B=[]

C=[]

n=int(input("Enter strengths of student"))

for i in range (1,n+1):

U.append(i)

a=int(input("Enter no of student like cricket"))

for i in range (a):

A.append(int(input("Enter roll no of cricket player")))

b=int(input("Enter no of student like badminton"))

for i in range (b):

B.append(int(input("Enter roll no of badminton player")))

c=int(input("Enter no of student like football:-"))

for i in range (c):

C.append(int(input("Enter roll no of football player:-")))

print("Cricket player are=",A)

print("badminton player are=",B)

print("football player are=",C)

# play both cricket and badminton----------------------------------------------

R1=[]

def result1(A,B):

for i in range(a):

for j in range(b):

if A[i]==B[j]:

R1.append(A[i])

print("who play both cricket and badminton:-",R1)

return R1

result1(A,B)

#Cricket or badminton but not both---------------------------------------------

T1=[]

for i in range(a):

T1.append(A[i])

for i in range(b):

flag=0

for j in range(a):

if B[i]==A[j]:

flag=1

break

if flag==0:

T1.append(B[i])

T2=[]

def result2(T1,R1):

for i in range(len(T1)):

flag=0

for j in range(len(R1)):

if T1[i]==R1[j]:

flag=1

break

if flag==0:

T2.append(T1[i])

print("students who play cricket or badminton but not both:-",T2)

return T2

result2(T1,R1)

#neithr badminton nor cricket--------------------------------------------------

T3=[]

def result3(U,T1):

for i in range(n):

flag=0

for j in range(len(T1)):

if U[i]==T1[j]:

flag=1

break

if flag==0:

T3.append(U[i])

print("Student who play neither cricket nor badminton:-",T3)

return T3

result3(U,T1)

#Student who play cricket and football but not badminton-----------------------

T4=[]

for i in range(a):

T4.append(A[i])

for i in range(c):

flag=0

for j in range(a):

if C[i]==A[j]:

flag=1

break

if flag==0:

T4.append(C[i])

T5=[]

def result4(T4,B):

for i in range(len(T4)):

flag=0

for j in range(b):

if T4[i]==B[j]:

flag=1

break

if flag==0:

T5.append(T4[i])

print("Student who play cricket and football but not badminton:-",T5)

return T5

result4(T4,B)