#### **Ex. No. : 12.1** MODULES - REPRESENTING UNIQUE PAIRS

**Program:**

a=int(input()) b=input().split() c=int(input()) co=0

l=[int(b) for b in b] for i in range(0,a): for j in range(0,a): if abs(l[i]-l[j])==c and i<j: co+=1 print(co)

#### **Ex. No. : 12.2** MODULES-CALCULATING AVERAGE

Import math

a=int(inpt())

n=a

b=input().split() s = 0

p = b.index("MARKS") while a!=0:

c=input().split() s += int(c[p])/n a-=1 print(f"{s:.2f}")

#### **Ex. No. : 12.3** MODULES-USING DICTIONARY

d={} d = {} while True: try:

book = input().split(',') if len(book) < 2: continue book\_name = book[0].strip() category = book[1].strip() if category in d:

d[category].append(book\_name) else:

d[category] = [book\_name] except EOFError: break

for k, v in d.items(): print(f"{k}: ", end='') print(', '.join(v))

#### **Ex. No. : 12.4** MODULE-POWER OF FOUR

**Program:**

a=int(input()) c=0

for i in range(a): if a==2\*\*i:

c+=1 if c==1:

print("True") else:

print("False")

**Ex. No. : 12.5** MODULES-DETERMINING THE TOTAL REVENUE

**Program:** a=int(input()) b=input().split() c=int(input()) s=0 for i in range(c): l1=[] l1=input().split() if l1[0] in b: s+=int(l1[1])

b.remove(l1[0]) print(s)