

```

a=[]
b=[]
proots=0
nroots=0
coeff=input('Enter polynomial coefficients separated by space ')
a=list(map(float,coeff.split()))
for j in range(0,len(a)-1):
    if a[j]*a[j+1]<0:
        proots=proots+1
for j in range(0,len(a)):
    b.append(a[j]*((-1)**j))
for j in range(0,len(a)-1):
    if b[j]*b[j+1]<0:
        nroots=nroots+1
    croots=len(a)-1-proots-nroots
print("\nApplying Descartes Rule of Signs, we get")
print("No of +ve real roots: atmost",proots)
print("No of -ve real roots: atmost",nroots)
print("No of complex roots: atleast",croots)

```

Result:

Enter polynomial coefficients separated by space 8 -12 -2 3

Applying Descartes Rule of Signs, we get

No of +ve real roots: atmost 2

No of -ve real roots: atmost 1

No of complex roots: atleast 0