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# Program for Descartes' Rule of Sign
f(x)=-2x**3+x**2-x+5

y1 = [-2, 1, -1, 5]
y2 = y1
n=4
"""print (y1[0])"""
print ('f(x) is:')
print(y1)
cnt1=0
i=0
for i in range(0, 3, 1):
    if (y1[i]*y1[i+1]<0):
        cnt1 = cnt1+1
print ('Number of Positive roots are cnt1:')
print (cnt1)
for i in range(1, 5, 2):
    y2[i]= -y1[i]
print('f(-x) is: ')
print(y2)
cnt2=0
i=0
for i in range(0, 3, 1):
    if (y2[i]*y2[i+1]<0):
        cnt2 = cnt2+1
print ('Number of Negative roots are cnt2:')
print (cnt2)

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☞ f(x) is:
[-2, 1, -1, 5]
Number of Positive roots are cnt1:
3
f(-x) is:
[-2, -1, -1, -5]
Number of Negative roots are cnt2:
0

```