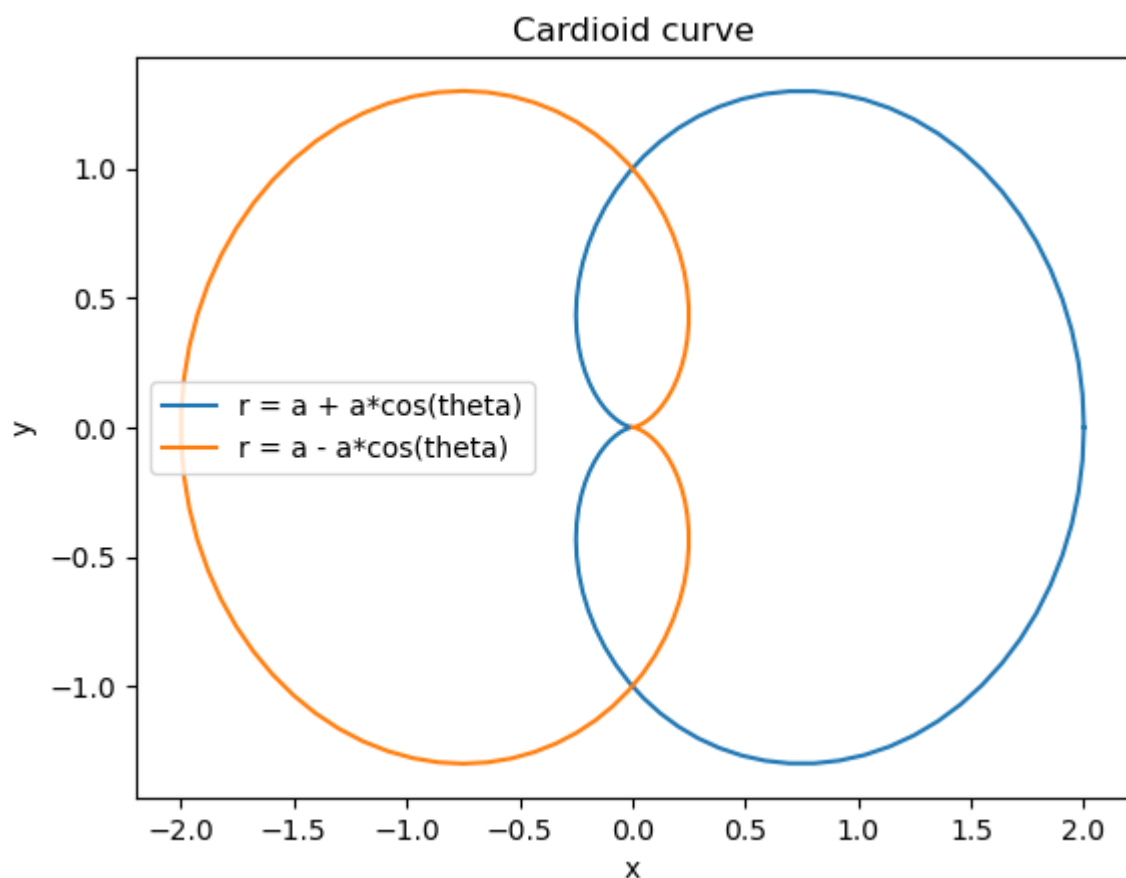


```
In [1]: import matplotlib.pyplot as plt
import numpy as np
theta = np.linspace(0, 2*np.pi, 100)
a = 1
r1 = a + a*np.cos(theta)
r2 = a - a*np.cos(theta)
x1 = r1*np.cos(theta)
y1 = r1*np.sin(theta)
x2 = r2*np.cos(theta)
y2 = r2*np.sin(theta)
fig, ax = plt.subplots()
ax.plot(x1, y1, label='r = a + a*cos(theta)')
ax.plot(x2, y2, label='r = a - a*cos(theta)')
ax.set_xlabel('x')
ax.set_ylabel('y')
ax.set_title('Cardioid curve')
ax.legend()
plt.show()
```



```
In [2]: from sympy import *
x ,y , z= symbols ('x y z')
w1= integrate ( x ** 2+y ** 2 ,( y ,0 , x ) ,(x ,0 , 1 ) )
print ( w1 )
```

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```
In [3]: from sympy import *  
x= Symbol ('x')  
y= Symbol ('y')  
z= Symbol ('z')  
w2= integrate (( x*y*z ) ,(z ,0 , 3-x-y ) ,(y ,0 , 3-x ) ,(x ,0 , 1 ) )  
print ( w2 )
```

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