**sympy**

import sympy

import sympy.plotting as sp

sp.plot\_implicit(x\*\*2 - y\*\*2 - 1)

sp.plot3d( sympy.sqrt(1-x\*\*2-y\*\*2), -sympy.sqrt(1-x\*\*2-y\*\*2), (x, -1, 1), (y,-1,1) )

sp.plot\_parametric(xt, yt, (t, 0.0, 5.0))

sp.plot3d\_parametric\_line(xl, yl, zl, (t, -10, 10) )

sp.plot3d\_parametric\_surface(xs, ys, zs, (t, -10, 10), (s, -10, 10) )

**matplotlib**

import matplotlib.pyplot as plt

fig = plt.figure( figsize=(5, 5) )

**polar plot**

ax = fig.gca(projection="polar")

ax.set\_rorigin(0.0)

ax.plot(r, theta, linestyle="--")

**3d plot**

ax = fig.gca(projection="3d")

ax.plot(xl,yl,zl)

ax.plot\_surface(xp,yp,zp)

**axes limits**

ax.set\_xlim(-20,20)

ax.set\_ylim(-20,20)

ax.set\_zlim(-20,20)

plt.savefig(“output\_file.pdf”)

plt.show()