

Note: You can save a plot figure from your script by doing

```
plt.savefig('filename.png')
```

or

```
plt.savefig('filename.pdf')
```

These commands need to be issued just before the `plt.show()` command otherwise your figure files will be empty.

- 1) (3 pts) Use Python to generate surface and contour plots of

$$z = x \cos(y) + y \sin(x), \quad x \in [-\pi, \pi], \quad y \in [0, 2\pi].$$

Use enough points that your plots are smooth.