10.4 - Sin Cos

Write a Python program that uses `matplotlib` to draw a plot of sine and cosine from 0 to 2π on the same axes. Include x-axis tick marks every $\frac{\pi}{2}$ and y-axis tick marks at -1 and 1. Color the sine wave red and the cosine wave blue.

Save the resulting figure as `sin_cos_login.pdf` and save your completed Python program as `sin_cos_login.py`, where `login` is your Purdue login. Then submit both of them. You do not need to submit a screenshot for this exercise.
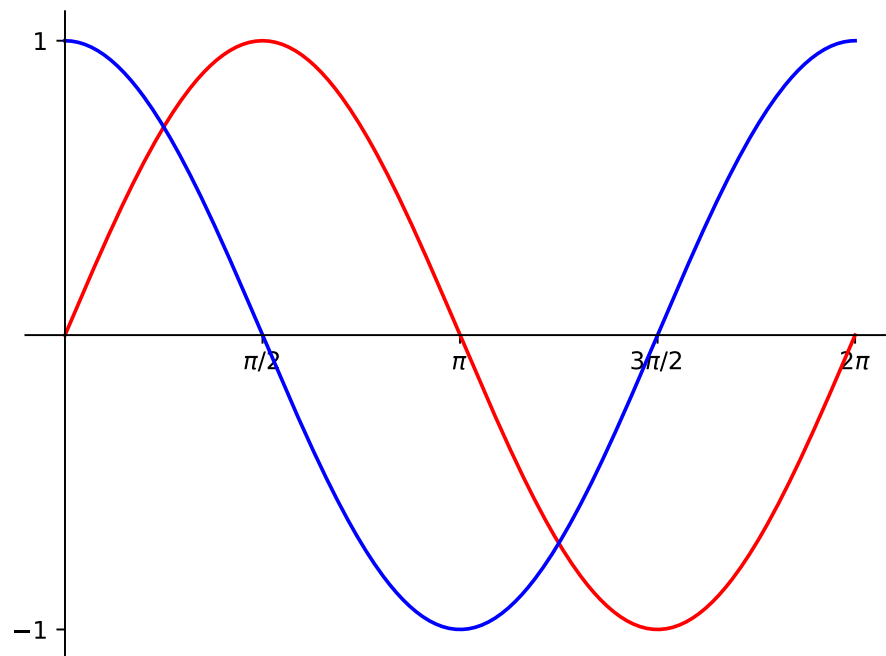

Figure 1: A sample plot of sin and cosine for Exercise 10.4.