Jupyter_Example

February 4, 2019

```
In [1]: 5*4
```

```
Out[1]: 20
```

```
In [2]: sin(pi/6)
```

```
Out[2]: 1/2
```

```
In [3]: f(x) = sin(x)/x^2
```

```
In [4]: f(pi)
```

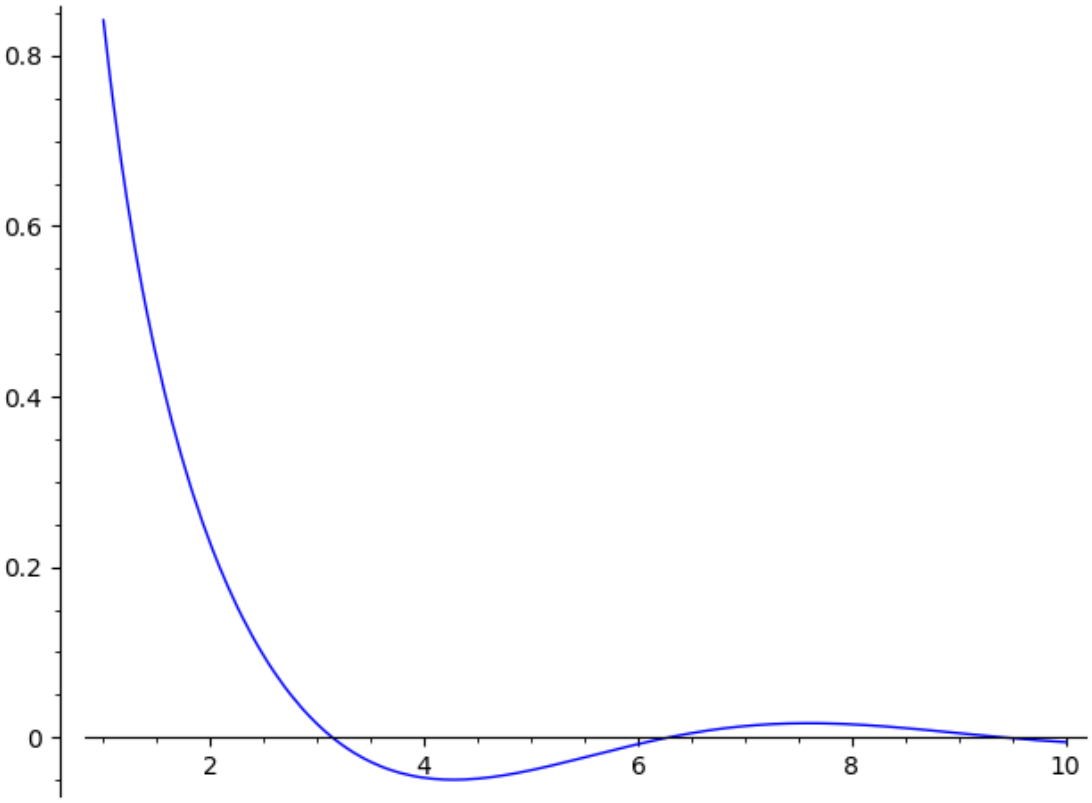
```
Out[4]: 0
```

```
In [5]: f(1)
```

```
Out[5]: sin(1)
```

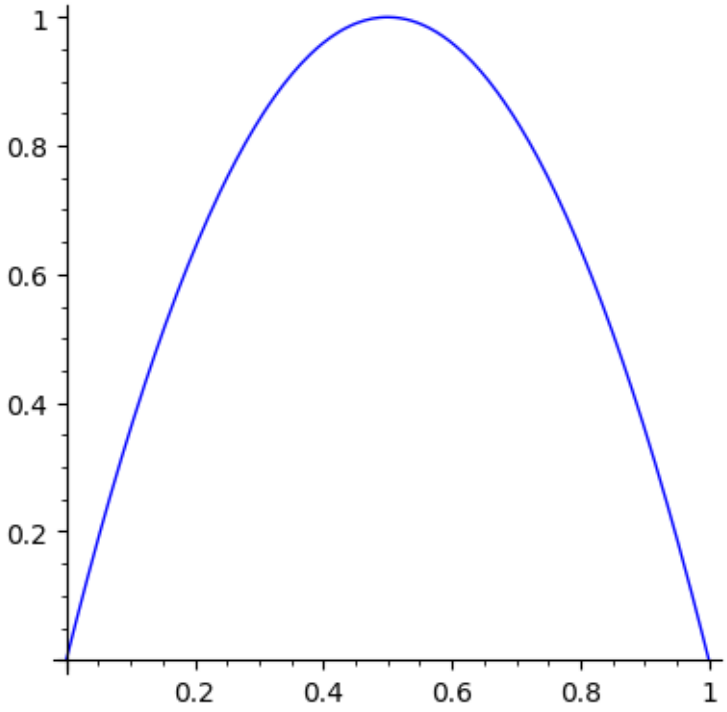
```
In [6]: plot(f, 1, 10)
```

Out[6]:



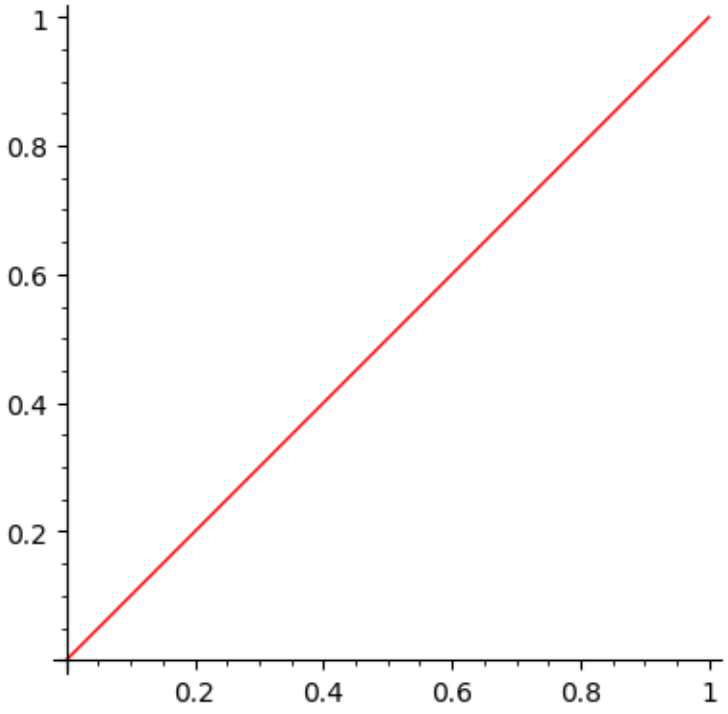

```
In [7]: f(x) = 4*x*(1-x)

In [8]: plot(f, 0, 1, aspect_ratio=1)
```

Out[8]:



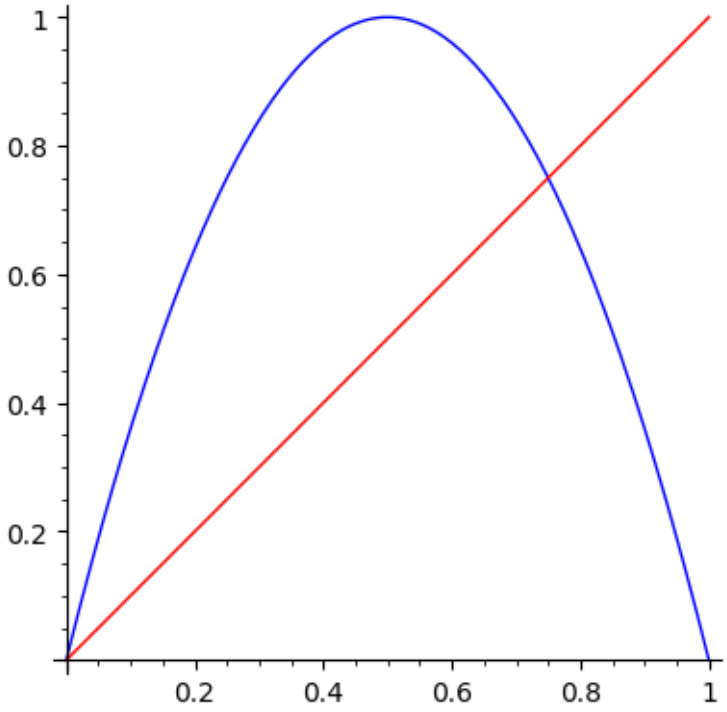

```
In [9]: identity(x) = x
        plot(identity, 0, 1, aspect_ratio=1, color="red")
```

Out[9]:



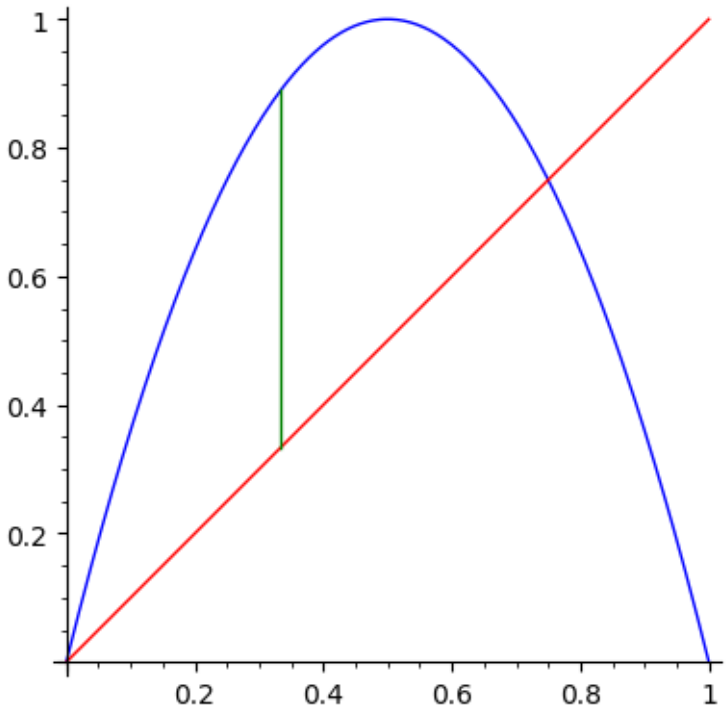

```
In [10]: plt = plot(f, 0, 1, aspect_ratio=1) + \
                plot(identity, 0, 1, aspect_ratio=1, color="red")
         plt
```

Out[10]:




```
In [11]: x = 1/3
         y = f(x)
         path = [(x,x), (x, y)]
         plt + line2d(path, color="green")
```

Out[11]:

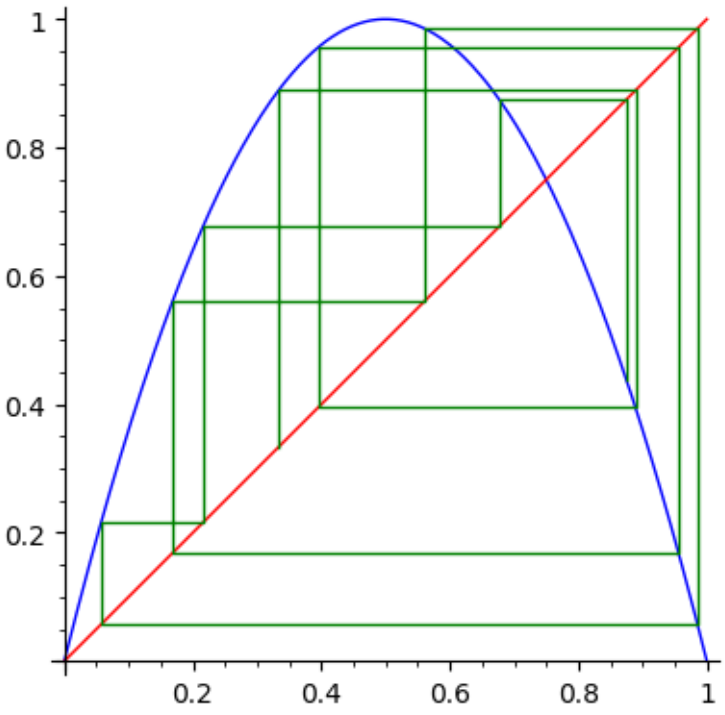



```
In [12]: for i in range(10):
             print(i)
```

```
0
1
2
3
4
5
6
7
8
9
```

```
In [13]: x = 1/3
         y = f(x)
         path = [(x,x), (x, y)]
         for i in range(10):
             x = y
             y = f(x)
             path.append( (x,x) )
             path.append( (x,y) )
         plt + line2d(path, color="green")
```

Out[13]:



In [14]: f(8/9)

Out[14]: 32/81