

Using Quarto for reproducible article writing

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Introduction

The purpose of this article is to show how to use Quarto to generate an article just like this, hopefully with better content. This is just a demonstration of how powerful Quarto is to generate multiple artifacts from substantially the same content/code.

You can see how I have done this in <https://www.meyerperin.com/using-quarto>.

Population changes

Over the last few decades, the number of children per woman has been declining and overall longevity has been increasing.

The outcome of these changes is that over the next few decades, the proportion of children and working adults will go down in many countries, and the proportion of older adults will increase.

Demographers use a metric called **Dependency Ratio** to evaluate how many non-working people are supported by 100 working people.

The formula for the dependency ratio is:

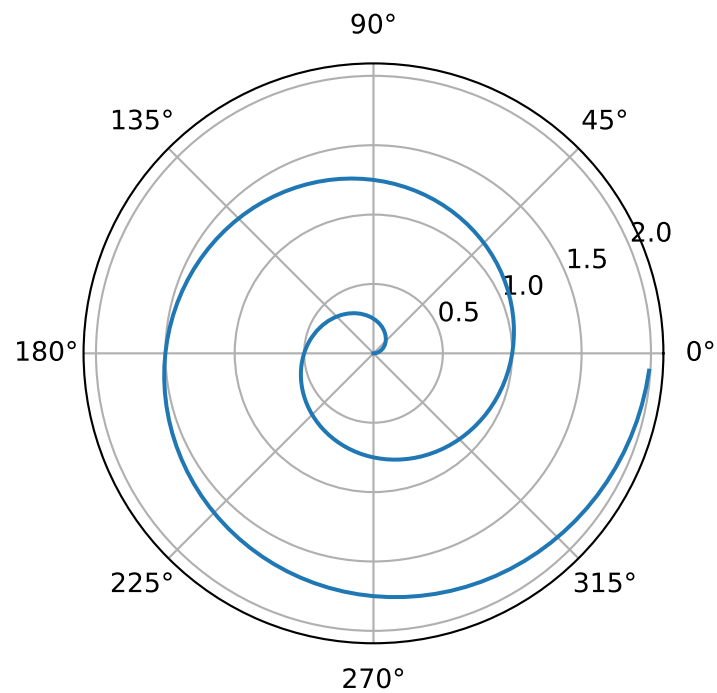
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Code

```
import numpy as np
import matplotlib.pyplot as plt

r = np.arange(0, 2, 0.01)
theta = 2 * np.pi * r
fig, ax = plt.subplots(subplot_kw={'projection': 'polar'})
ax.plot(theta, r)
ax.set_rticks([0.5, 1, 1.5, 2])
ax.grid(True)
plt.show()
```



Conclusion

This is where things end