

Please push a notebook with answers to the following questions to github when you're done

1. Lookup information on geometric mean and harmonic mean to answer the following questions:
  - a. In a jupyter notebook create a markdown section for each of the three concepts: arithmetic mean, geometric mean, and harmonic mean
  - b. Write a definition for arithmetic mean, geometric mean, and harmonic mean, under their respective headings
  - c. Write an example code example for arithmetic mean, geometric mean, and harmonic mean using the Belize Airbnb data in a cell under the each respective summary in markdown
2. Use this article to answer the following questions:  
<https://realpython.com/numpy-scipy-pandas-correlation-python/>
  - a. In a jupyter notebook markdown cell, describe the difference between linear and rank correlation.
  - b. Create a scatter plot showing the relationship between `calculated_host_listings_count` and `availability_365` in the Belize Airbnb data
  - c. Calculate the correlation coefficient for the data in the scatter plot and describe what is happening.