

---

## ART AND GOLDEN RATIO

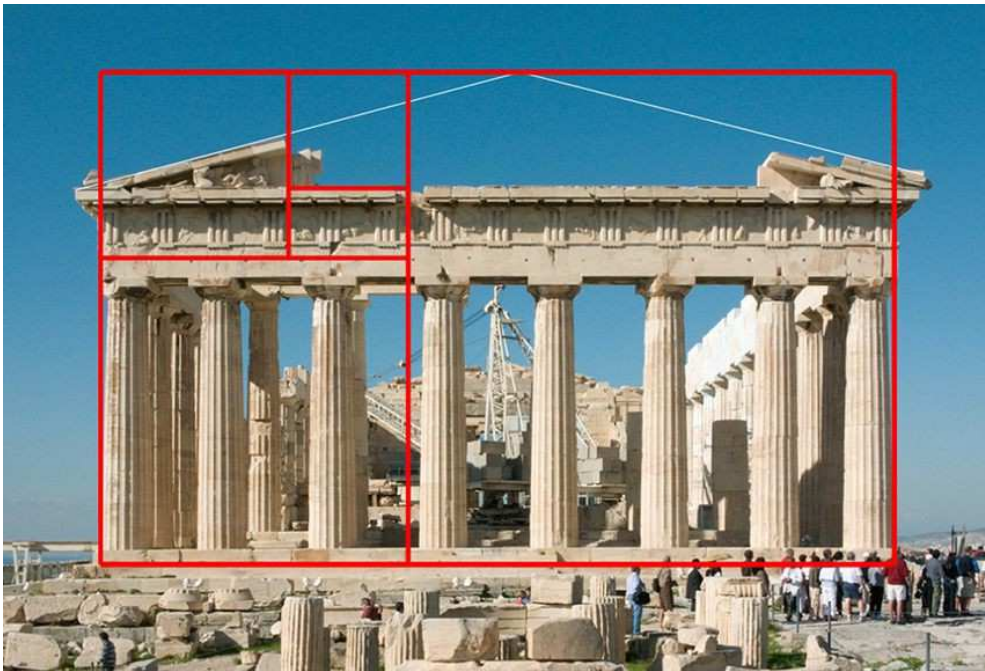
---

### Summary

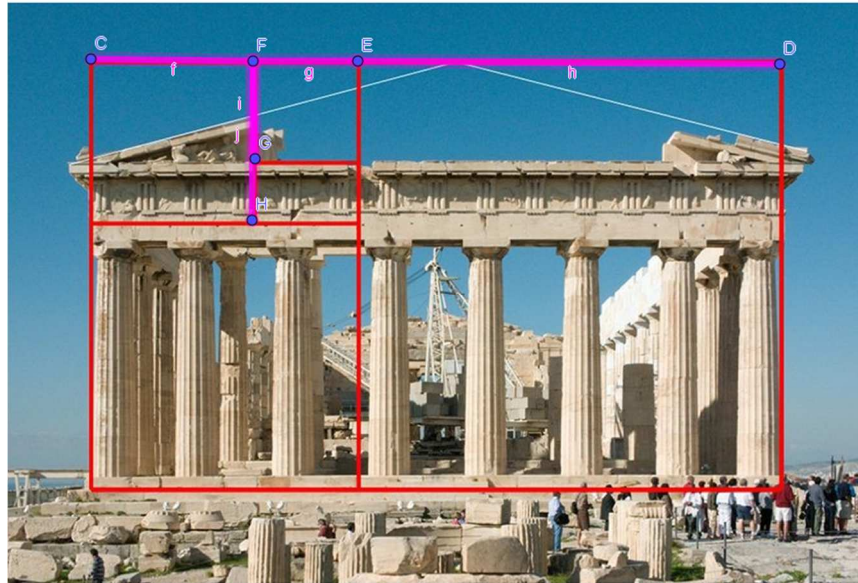
We will look for the Golden ratio in different buildings using the Software GeoGebra. First, we will read about how to use it in order to analyze images. Lately, we will apply it to look for the Golden ratio in the Alhambra, one of the most iconic attraction of Spain.

### Activities

1. Read the "Image Tool GeoGebra manual following this [link](#).
  - i. Open GeoGebra [here](#).
  - ii. Copy this image:



- iii. Anchor the image. Click with the mouse in the image and select "anchor the object."
  - iv. See [this](#) video. It's a basic 4 minutes tutorial of GeoGebra.
  - v. Create several segment using the tool dot and segment as the image shows.



vi. Call and color them as the image.

vii. Calculate these ratios:

$$\frac{f+g+h}{h}, \quad \frac{h}{f+g}, \quad \frac{f+g}{g}, \quad \frac{f}{i}$$

viii. What do you observe? Is it similar to one well-known irrational number?

2. Using GeoGebra, look for the Golden ratio, or for aurean rectangles in these pictures:

