- Viewport: $W_v \times H_v$: we defined this, e.g., to be 1:1
- World Coordinate: $W_{wc} \times H_{wc}$:
  - we want this to match viewport: $\frac{W_{wc}}{H_{wc}} = \frac{W_v}{H_v}$
    - W_v and H_v are knowns (we define these)
    - We typically set W_{wc} to whatever we like, and compute H_{wc} in the camera
- In this case:
  - We have an image with resolution: $W_i \times H_i$ ← Given
  - We want to Define a Renderable: $W_r \times H_r$
    - We want an aspect ratio that matches the image: $\frac{W_r}{H_r} = \frac{W_i}{H_i}$
      - $W_r = H_r \frac{W_i}{H_i}$ and
      - $H_r = W_r \frac{H_i}{W_i}$
    - We want our Renderable to cover as much WC space as possible!
  - So, either W_r covers the entire W_{wc} or H_r covers the entire H_{wc}
  - Conditions:

```
if (W_i > H_i) // wide image, Renderable covers the WC width
    Renderable.setWidth(W_wc, W_wc H_i/W_i);
          // since W_i > H_i, Renderable is wider than tall
else
   // tall image, Renderable covers the WC height
   Renderable.setWidth(H_wc W_i/H_i, H_wc);
```