2.6: Magnification

Magnification is, of course, defined as

$$\text{Magnification} = \frac{\text{Image space height}}{\text{Object space height}}. \tag{2.6.1}$$

Strictly speaking, this is the *linear transverse (or lateral) magnification*. There are other "sorts" of magnification, such as angular magnification and longitudinal magnification, but we shan't deal with these just yet, and the term "magnification" will be assumed to mean the lateral linear magnification.

I now assert *without proof*, (but I shall prove later) that the magnification can be calculated from

$$\text{Magnification} = \frac{\text{Inital space convergence}}{\text{Final space convergence}} = \frac{C_1}{C_2}. \tag{2.6.2}$$

Sign convention

- If the magnification is *positive*, the image is *erect*
- If the magnification is *negative*, the image is *inverted*