

# *It's Always the Same:*

$$\frac{1}{s} + \frac{1}{s'} = \frac{1}{f}$$

$$M = -\frac{s'}{s}$$

You just have to keep the signs straight:

## The sign conventions

- $S$ : positive if object is “upstream” of lens
- $S'$ : positive if image is “downstream” of lens
- $f$ : positive if converging lens