

# Physics 223

## Experiment 6: Compound Lenses

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Most useful optical instruments are made with compound lenses, made up of two or more individual lenses. When analyzing a compound lens, it is convenient to treat the two lenses sequentially with the image of the first lens acting as the object of the second lens and so on. Each lens will obey the thin lens equation:

$$\frac{1}{f_1} = \frac{1}{p_1} + \frac{1}{i_1}, \quad \frac{1}{f_2} = \frac{1}{p_2} + \frac{1}{i_2}$$