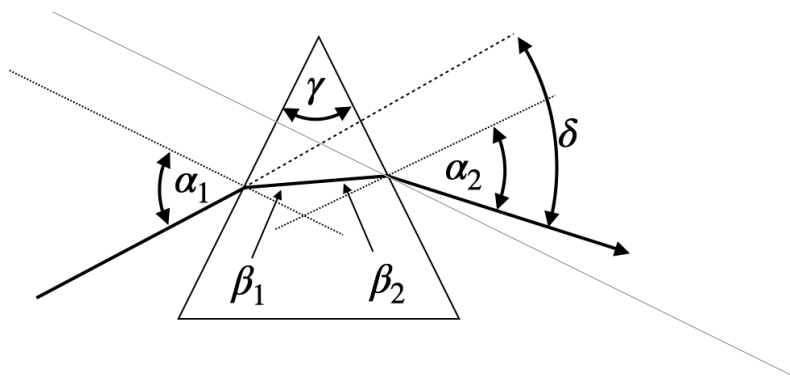


# Experimental Physics 3 - Em-Waves, Optics, Quantum mechanics

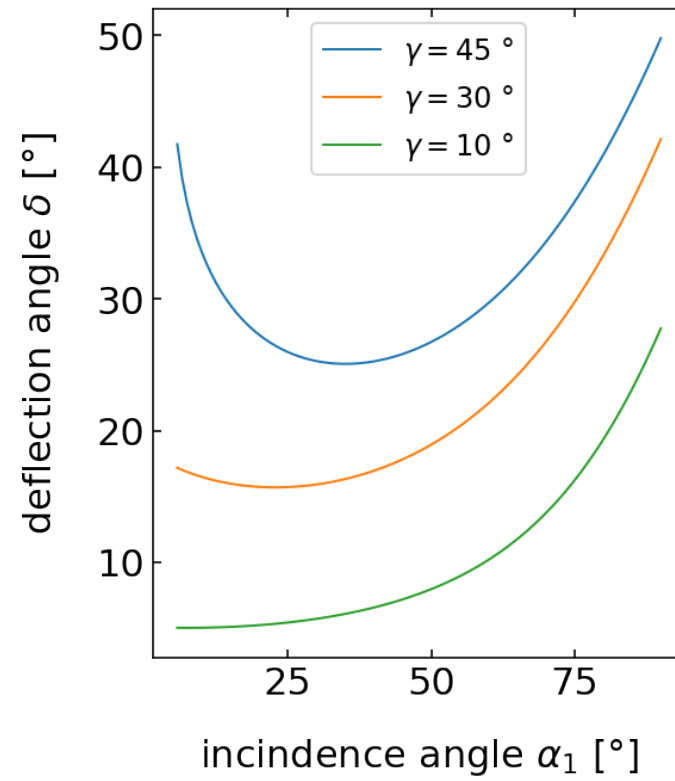
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## Lecture 3

# Prism

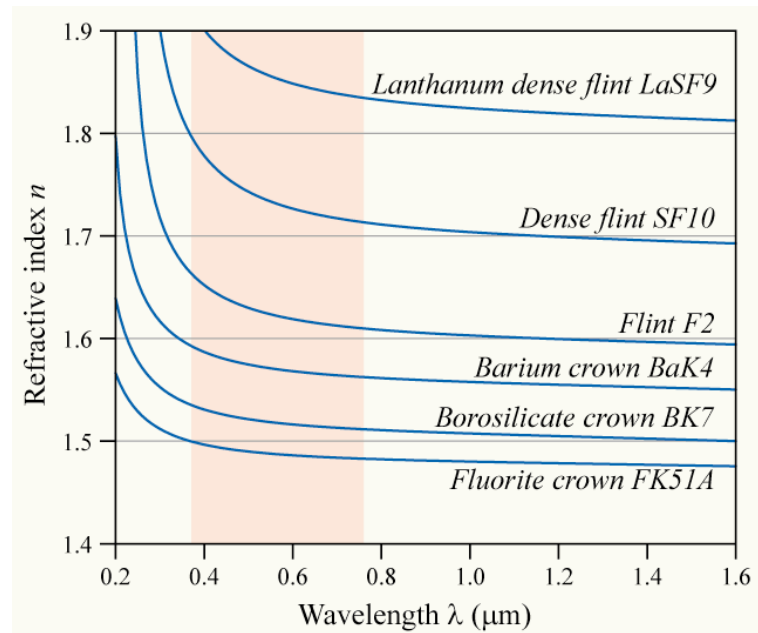


isosceles prism



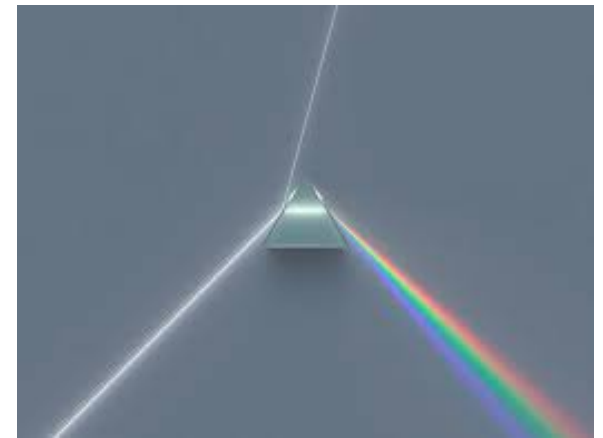
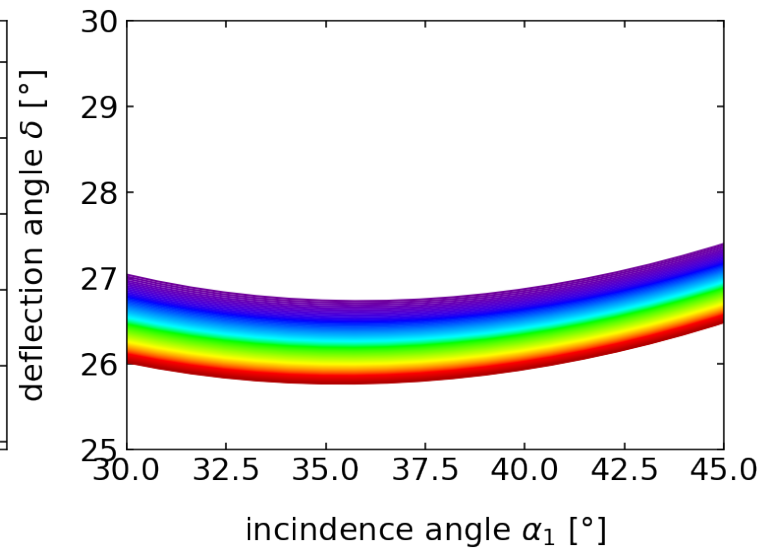
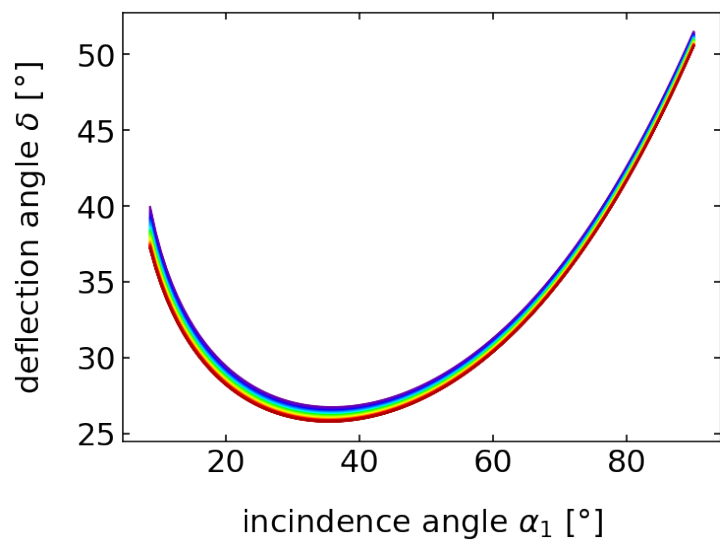
# Dispersion

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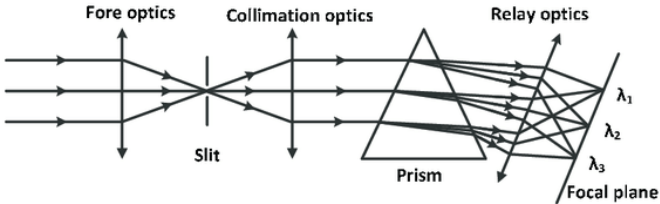
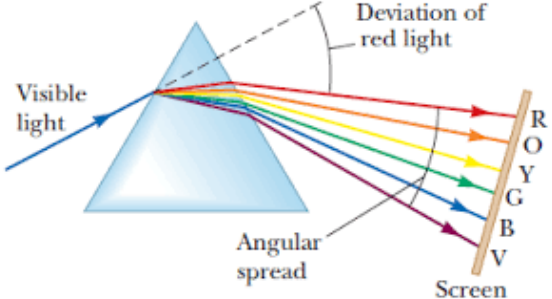


# Dispersion on a prism

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# Prisms for Spectroscopy

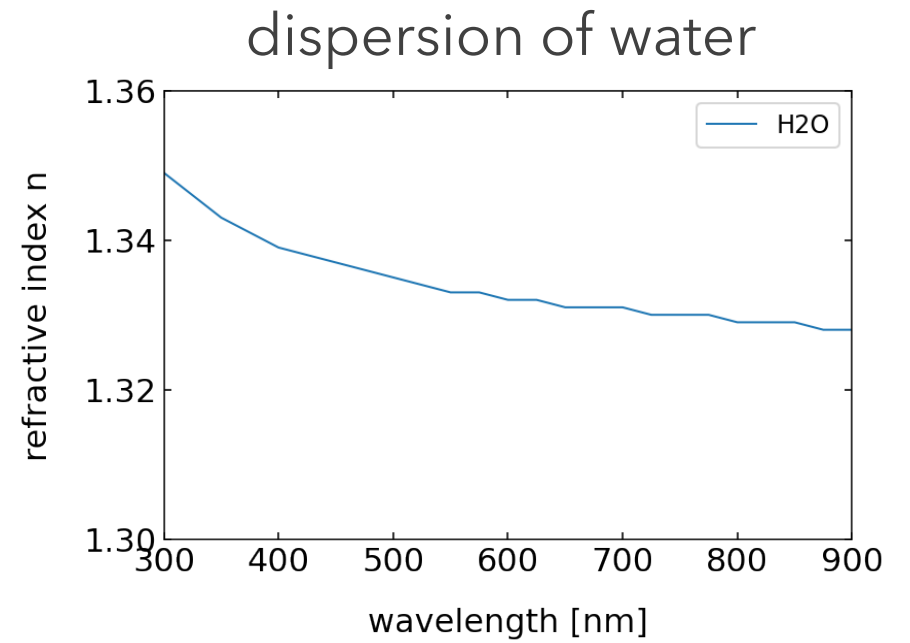
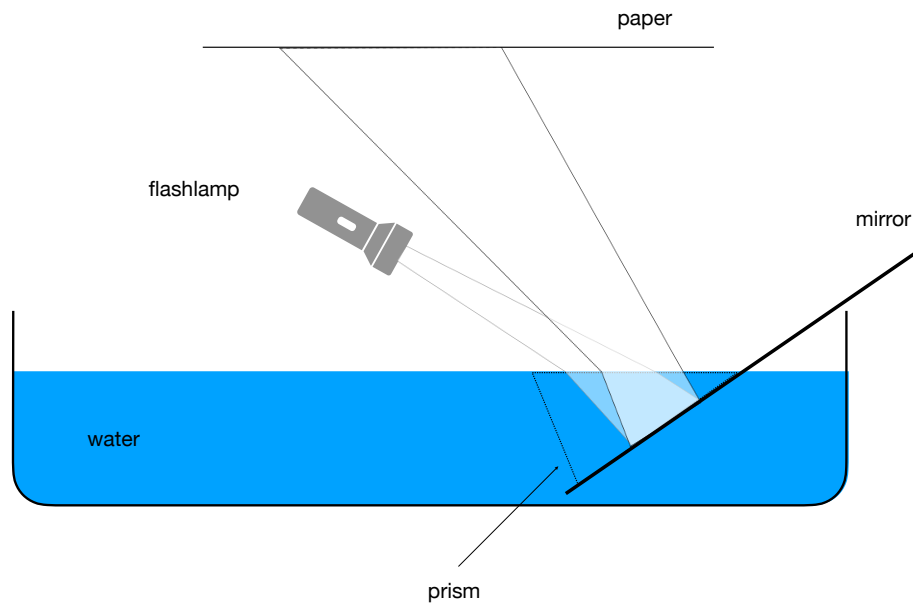


(a)

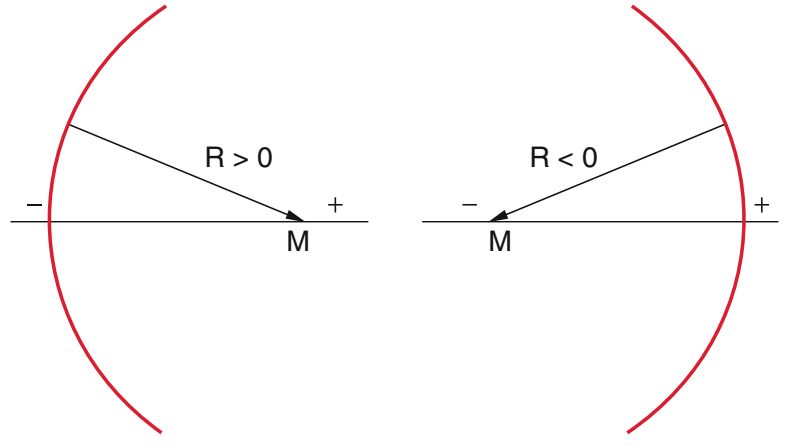
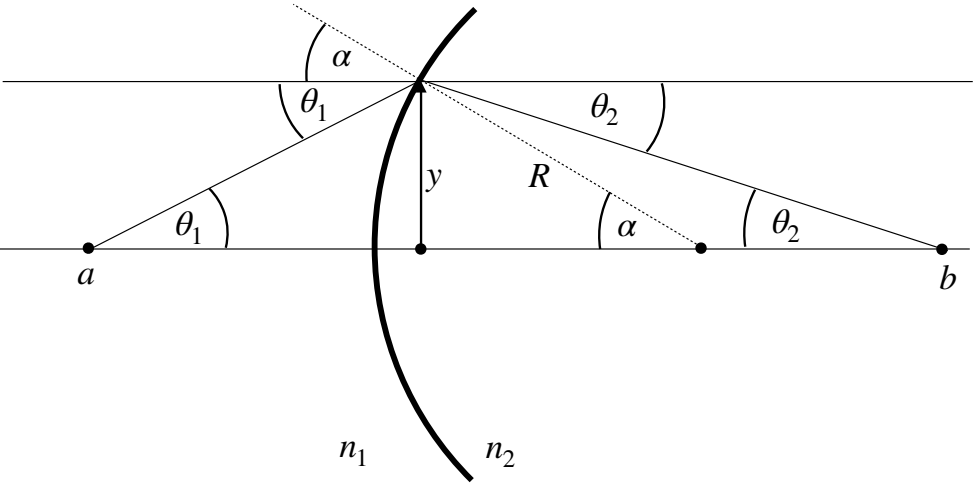


see optical instruments section

# DIY prism

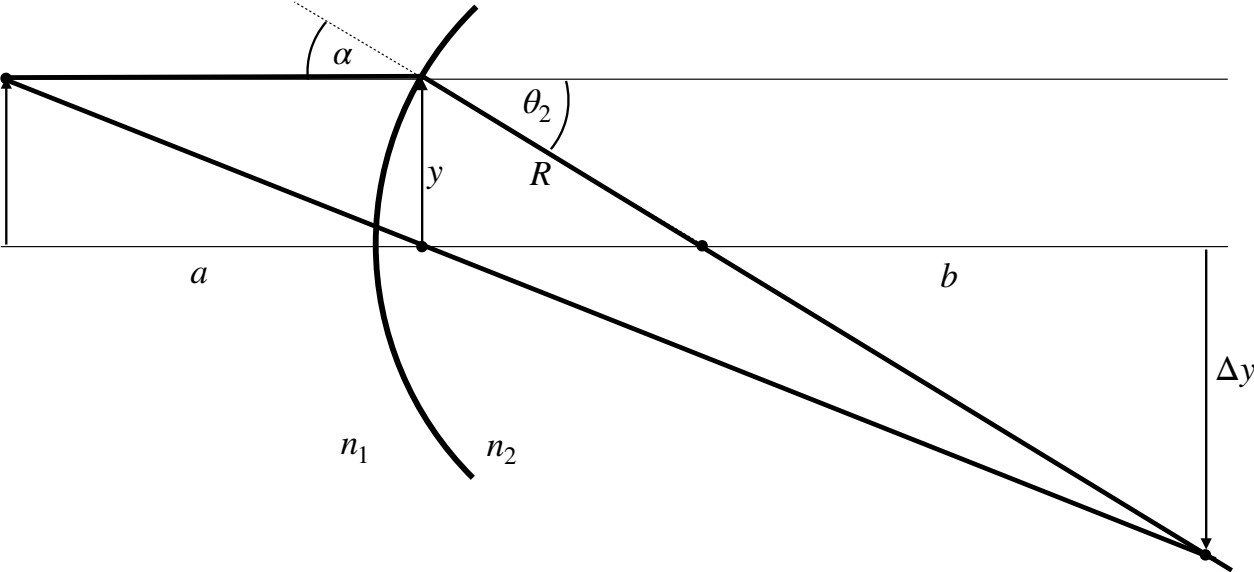


# Curved Interfaces



# Focal length of a curved surface

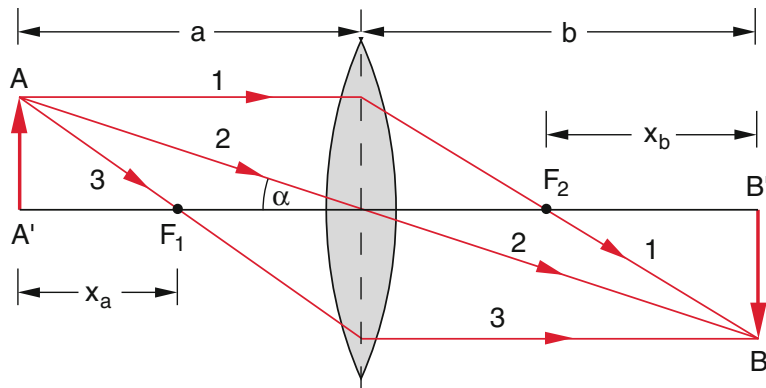
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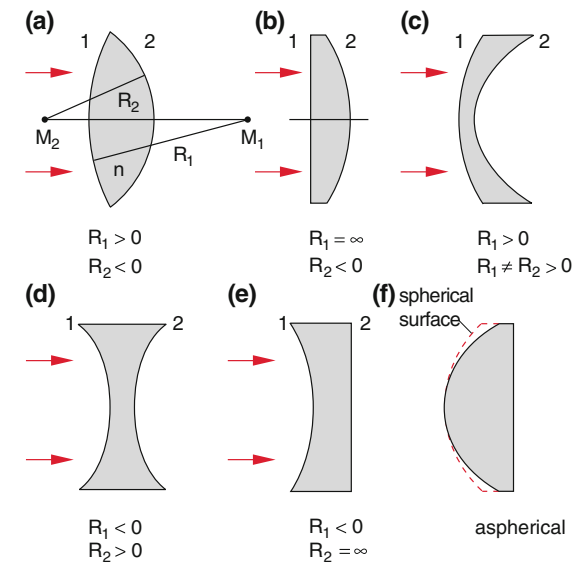


# Lenses

## thin lens



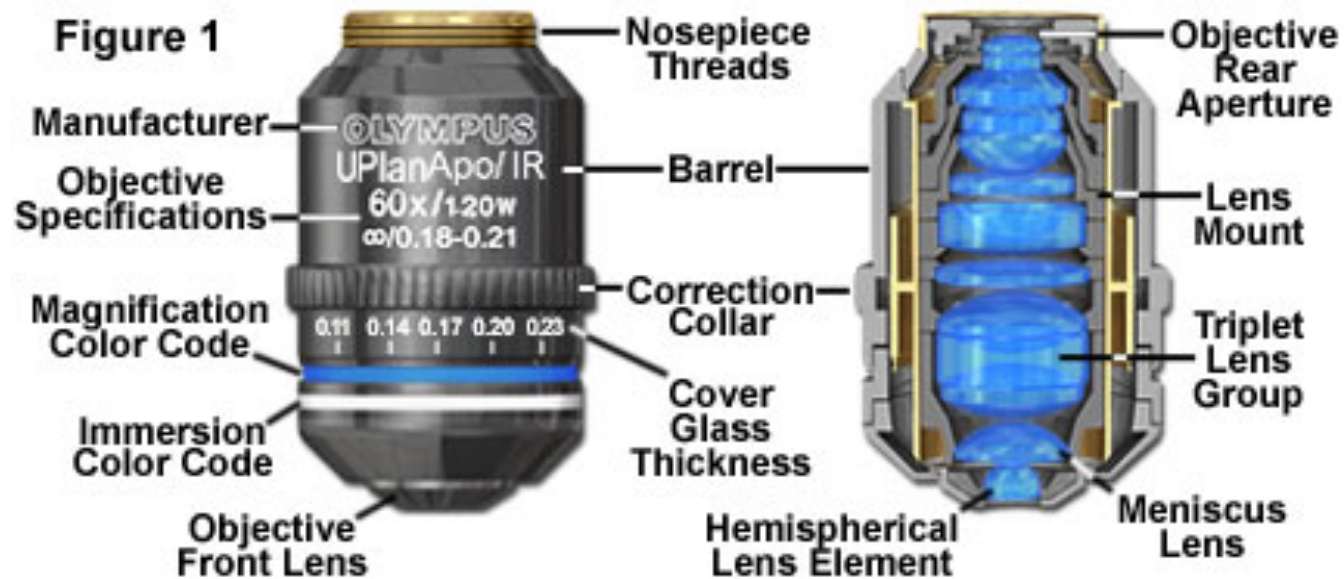
## lens types



**Fig. 9.26** Examples of different forms of lenses: **a)** convex-convex = biconvex **b)** plane-convex **c)** convex-concave **d)** biconcave **e)** concave-plane **f)** aspherical lens

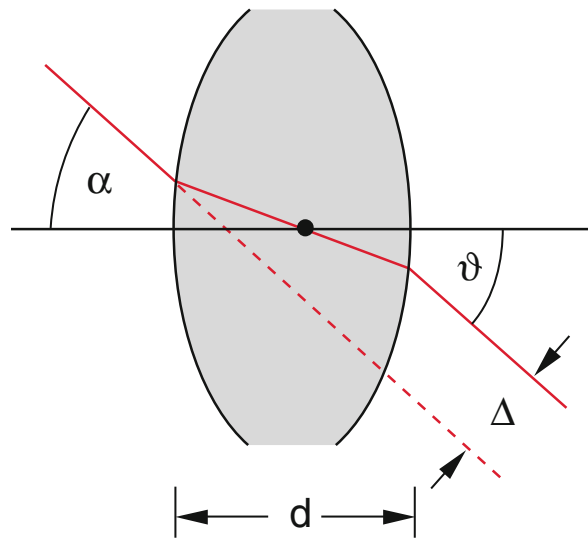
# Microscopy objective lens

## High Performance Confocal Microscope Objective

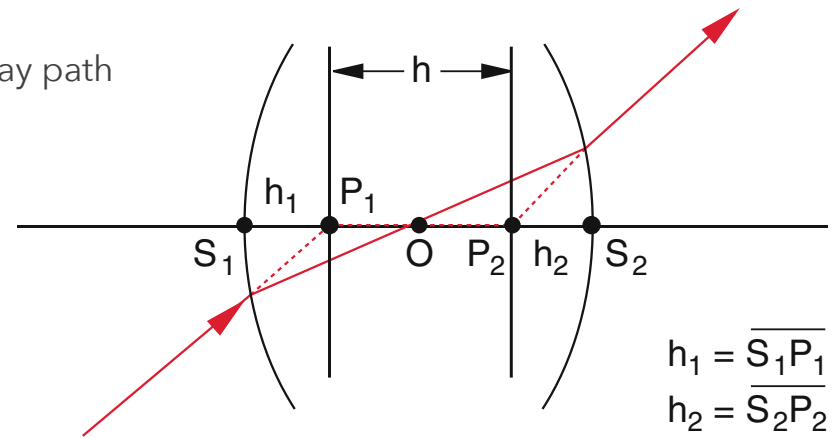


# Lenses

## thick lens



replacement ray path



geometrical construction

