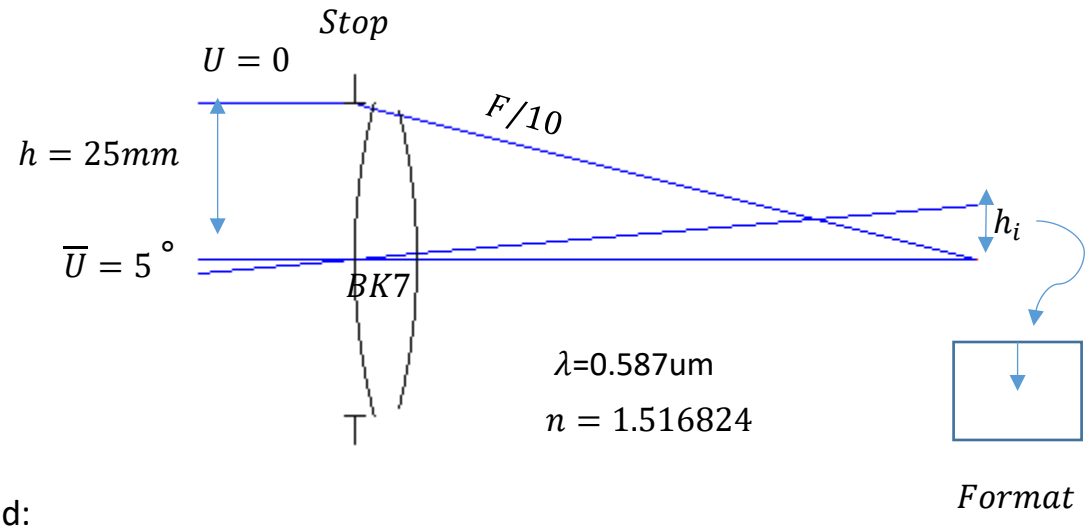
Lesson 1 Homework

Problem 1:

See 1.3 in Geary text. Height of incident marginal ray now 25. Assume a thin lens.



Find:

a. the effective focal length

b. the power of the lens

c. surface curvature for front and back surfaces (assume equiconvex shape)

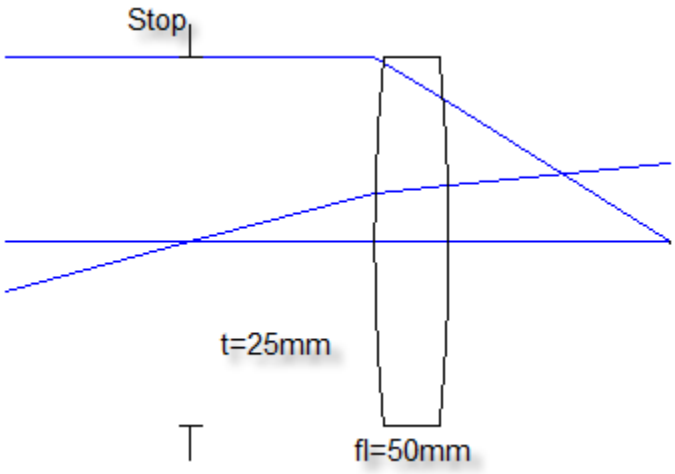
d. radius of curvature for each surface

e. format size (assume square)

f. Airy disk diameter

Problem 2:

Assume a thin lens with focal length 50mm. The stop, of 50 mm diameter, is located 25mm to the left of the lens.



Use the imaging equation to find:

a. Entrance pupil location and size
b. Exit pupil location and size
c. F/#