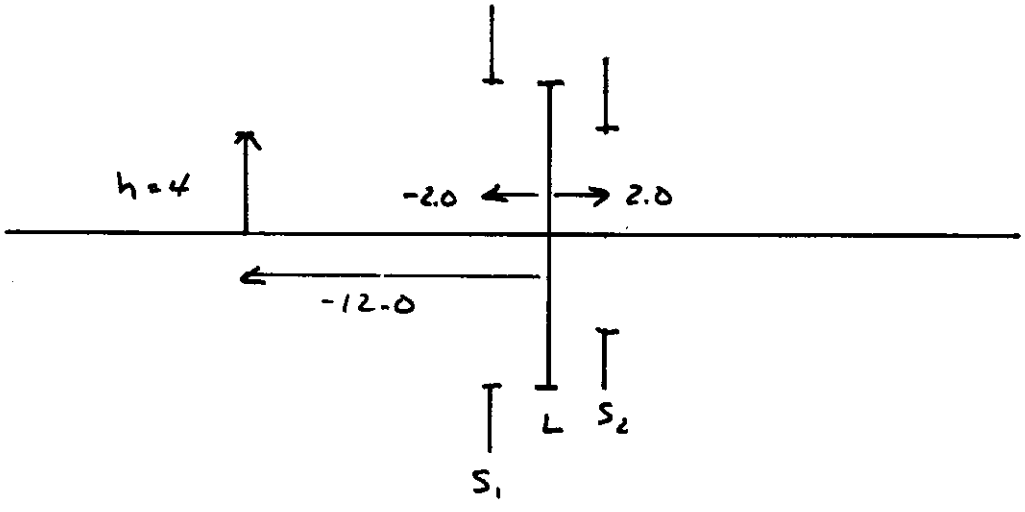
System with two stops.



$f_2 = 6.0$ cm

S_1 : dia = 6.0

S_2 : dia = 4.0

L : dia = 6.0

Which aperture is the stop ?

Image S_2 into object space as a potential entrance pupil.

(for this, light goes right to left!)

$$\frac{1}{-z'} = \frac{1}{-z} + \frac{1}{f_e} \qquad z = 2.0$$

$z' = 3.00$ (to the right of the lens)

$m = z'/z = 1.5$

then $d(ep2) = 1.5 \cdot 4.0 = 6.0$ cm

All three candidate entrance pupils (S_1, the lens aperture and the image of S_2) have the same diameter.

The entrance pupil that subtends the smallest angle (and is the entrance pupil) is the one the most to the right.

The pupil due to S_2 is the entrance pupil

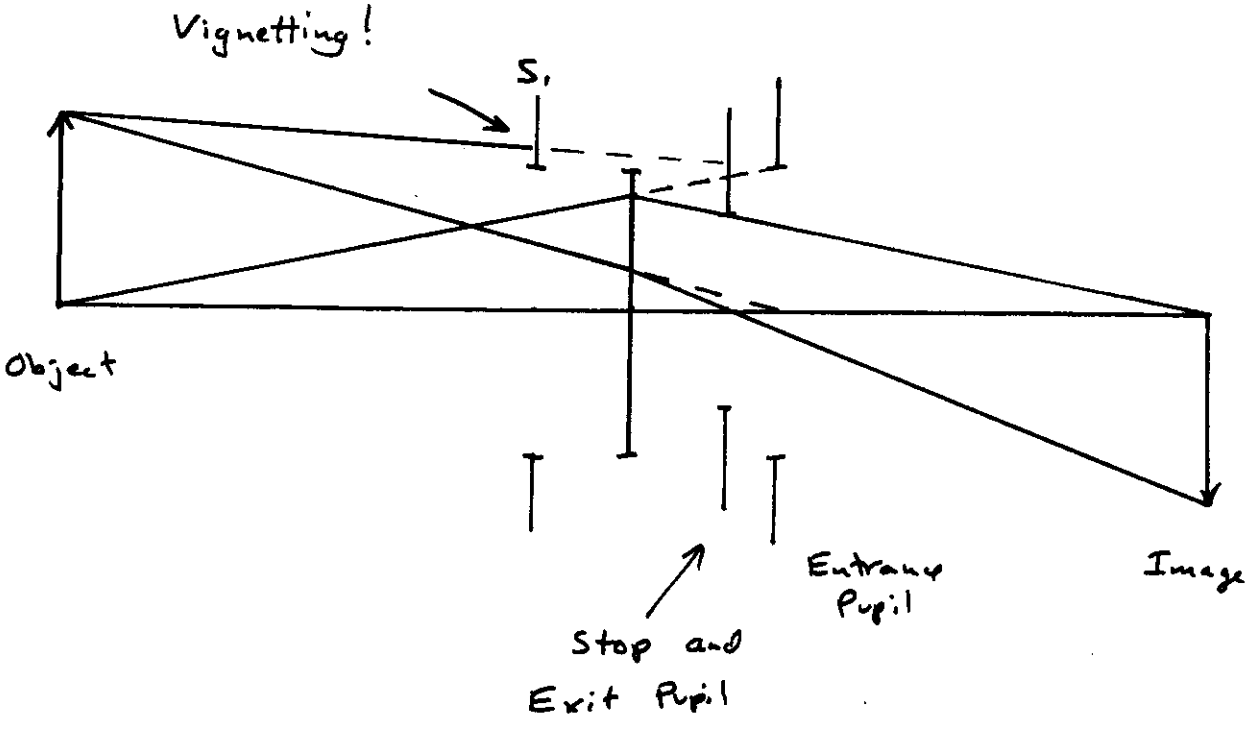
S_2 is the stop and the exit pupil (since it is already in image space)

Stop / Exit Pupil — Dia = 4.0 cm

z = 2.0 cm from lens

Entrance Pupil — Dia = 6.0 cm

z = 3.0 cm from lens



Since z is $-2f_e$, the image will be at $z' = 2f_e$ with a magnification of -1.

While not requested, note that this system has vignetting. A ray from the top of the object to the top of the entrance pupil is blocked by the first stop.