

Physics 267: Problem #3

Two converging lenses with focal lengths f_1 and f_2 are separated by distance $D < f_1, f_2$ with lens one on the left. An object is located to the left of lens one and $s < f_1$.

a)

What is the image position?

b)

If the lenses are brought into contact, what is the effective focal length of the combined lens system?