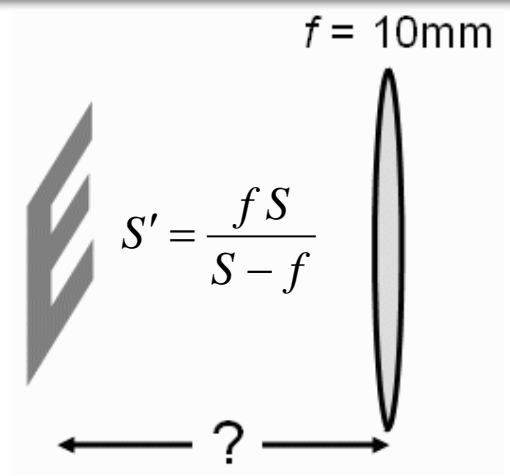




A magnifying glass is used to read the fine print on a document. The focal length of the lens is 10mm.

At what distance from the lens must the document be placed in order to obtain an image magnified by a factor of 5 that is not inverted?



What is the magnification  $M$  in terms of  $s$  and  $f$ ?

A)  $M = \frac{s - f}{f}$

B)  $M = \frac{f - s}{f}$

C)  $M = \frac{-f}{s - f}$

D)  $M = \frac{f}{s - f}$

Lens equation:

$$\frac{1}{S'} = \frac{1}{f} - \frac{1}{S}$$



$$S' = \frac{fS}{S - f}$$

Magnification equation:

$$M = -\frac{s'}{s}$$

$$M = \frac{-f}{s - f}$$

