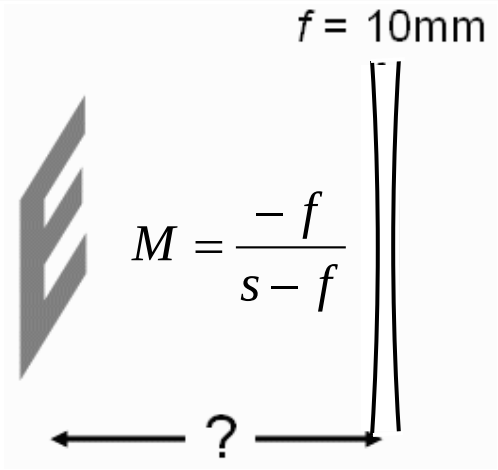
Follow Up

Suppose we replace the converging lens with a diverging lens with focal length of 10mm.

What is the magnification if we place the object at $s = 8\text{mm}$?



A) $M = \frac{1}{2}$ B) $M = 5$ C) $M = \frac{3}{8}$ D) $M = \frac{5}{9}$ E) $M = \frac{4}{5}$

EQUATIONS

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

$$s = 8\,mm$$

$$f = -10\,mm$$

$$\rightarrow M = -\frac{-10}{8-(-10)} = \frac{10}{18} = \frac{5}{9}$$

PICTURES