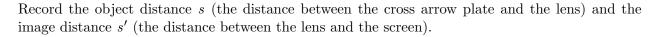
Thin Lenses

As you work through the steps in the lab procedure, record your experimental values and the results on this worksheet. Use the exact values you record for your data to make later calculations.

Positive Lens: Object Distance A



Calculate the focal length f of the lens and record your result.

Positive Lens: Object Distance B

Measure s and s' again and record your results.

Calculate the focal length f and record your result.

Auto-Collimation Method of Measuring f

Record th	e distance	between	the	lens	and	the	light	source	that	${\rm gives}$	an	image	sharply	focused	lon
the paper	screen.														

Measuring f for a Diverging Lens

Record the object and image distances s_1 and s'_1 .

Record the distance s_2 from L_2 to I_1 . Record s_2 as a negative number, since the location of I_1 is to the right of the diverging lens and therefore it acts as a virtual object.

Record the distance s'_2 from L_2 to I_2 .

Use your measurements to calculate the focal length f_2 of the diverging lens.