

# Optics and waves (week 9)

Fill in the table below with numbers/text where appropriate. Each row refers to a combination of an object and a thin glass lens in air. If a number in the table lacks a sign, find the sign. (Leave the shaded boxes blank).

[10]

Type	f	r <sub>1</sub>	r <sub>2</sub>	s	s'	n <sub>glass</sub>	m	Real image?	Inverted image?
Converging	10			+20					
	+10			+5					
	10			+5			>1		
		+30	-30	+10		1.5			
		-30	+30	+10		1.5			
				+10			0.5		No
				+10			-0.5		