

Image Positions - Thin Lens

$$\frac{1}{z'} = \frac{1}{z} + \frac{1}{f} \quad m = \frac{z'}{z}$$

$$f = 100 \text{ mm}$$

z	z'	m	Object	Image
-10,000 mm	101 mm	-0.01	Real	Real
-500	125	-0.25	Real	Real
-200	200	-1.0	Real	Real
-150	300	-2.0	Real	Real
-110	1100	-10.0	Real	Real
-90	-900	10.0	Real	Virtual
-50	-100	2.0	Real	Virtual
-25	-33.3	1.33	Real	Virtual
50	33.3	.67	Virtual	Real
100	50	.5	Virtual	Real
200	66.7	.333	Virtual	Real
500	83.3	.167	Virtual	Real
10,000	99	.0099	Virtual	Real