

AL MUSTAQBAL UNIVERSITY.

Medical physics sciences.

Optics laboratory.

second Stage.



بصريات عملي

الكورس الاول

2024-2023

Separated mirrors

Ruqayah Saleh

"Separated mirrors"

aim:-

Calculate the focal length of a concave mirror

Apparatus:-

Concave mirror

Screen

Metric ruler

Light source

theory:-

When a separate lens is placed in front of a concave mirror, the image is imaginary, and its sign is negative because it is an extension of the rays scattered towards the body.

The radiograph falling on a convex mirror shows that the object placed in the center of the woman's ball produces a moderate and imaginary image. After placing a lens for a mother, the image reflected from the woman and passers-by through the lens will apply to the body, and this only happens when the rays are refracted inside the lens and are directed and fall on the woman in a perpendicular to it and then reflect the same path that fell from

Accounts:-

- 1- We measure the distance from the body to the lens u and calculate the distance from the lens v .
- 2- We measure the distance d between the lens and the mirror.
- 3- We calculate the molar dimension of the convex mirror

$$\frac{1}{f} = \frac{1}{s} + \frac{1}{s'}$$

OR

$$f = \frac{S \times S'}{S + S'}$$

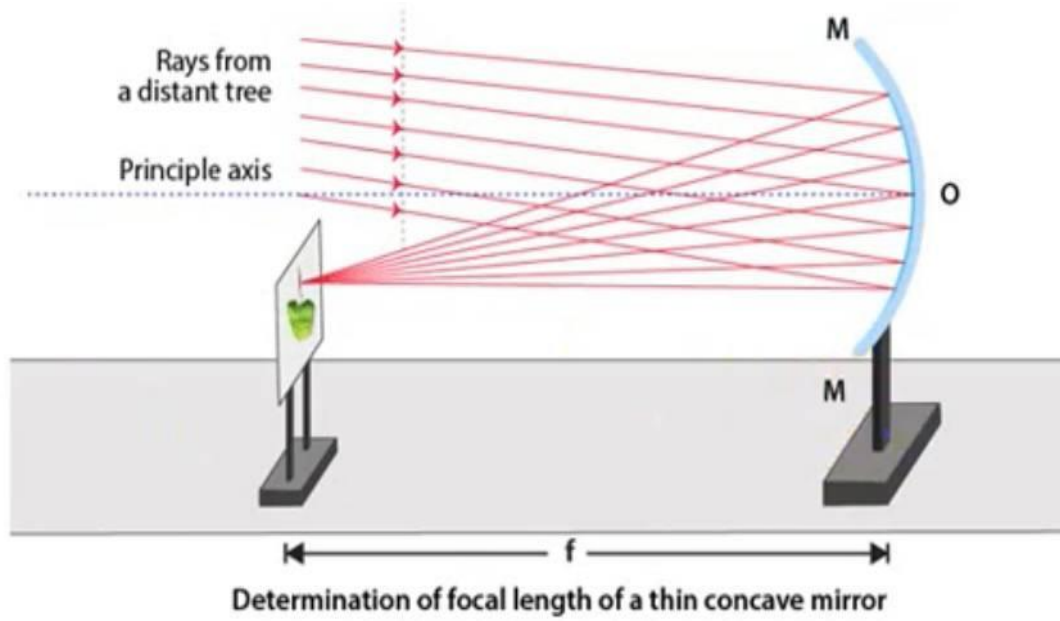
S	S'	$S \times S'$	$S + S'$
30	14		
35	13.5		
40	13		
45	12.5		
50	12		

$$\text{Slope} = \frac{S \times S'}{S + S'}$$

$$f = \text{slope}$$

The error rate law =

$$\left| \frac{\text{theoretical value} - \text{Practical value}}{\text{theoretical value}} \right| \times 100\%$$



GOOD LUCK

Ruqayah Saleh