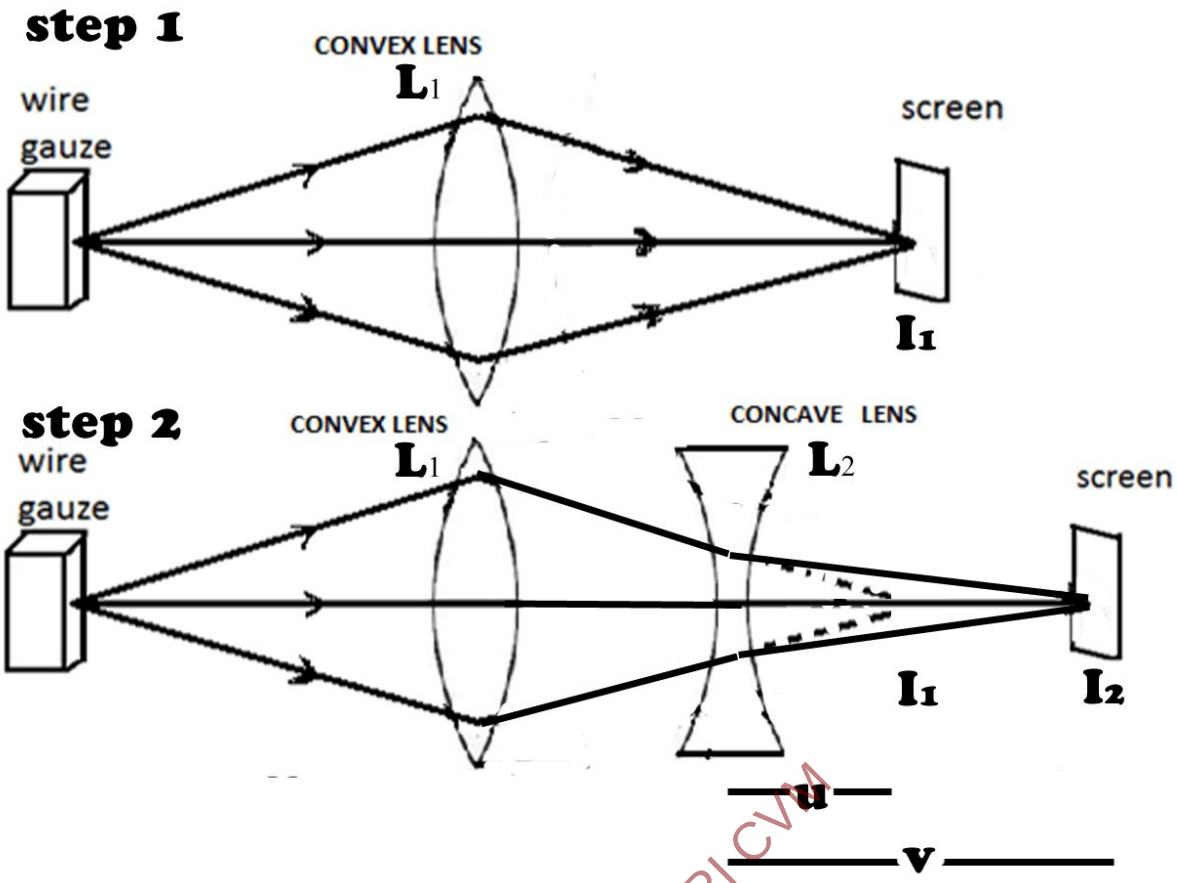

Observations and Calculation

Trail No	Object Distance u in cm	Image distance v in cm	Focal length f= $\frac{uv}{(u-v)}$	Mean focal length f in cm
1 2 3 4 5 6				f = ... cm

Focal length of the given concave lens **f=** $\frac{uv}{(u-v)}$ **= ..... cm**

f = ...m

CONCAVE LENS - out of contact

AIM

To find focal length of concave lens by out of contact method

APPARATUS

Concave lens, convex lens, screen, illuminated wire gauge.

THEORY

If **f** is the focal length of concave lens is given by

$$\mathbf{f}= \frac{uv}{(u-v)}$$

PROCEDURE

The convex lens L_1 is placed in front of an illuminated wire gauze and the screen is adjusted so that a clear image of wire gauze is obtained on it. Then position I_1 of the screen is noted. The concave lens L_2 is then placed in between the convex lens and the screen. The image becomes blurred. The distance between the convex lens L_2 and the screen I_1 is measured and marked as u. screen is then moved away from L_2 and is adjusted so that a clear image of wire gauze is obtained on it. Then new position I_2 of the screen is noted. Distance from concave lens L_2 and new screen position I_2 is measured and marked as v.

RESULT

Focal length of the given concave lens, **f** = ... m