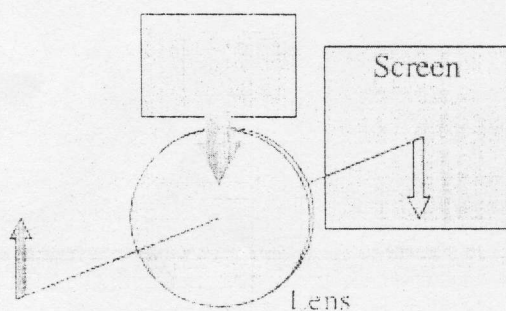


NAME: _____

Quiz #5a:
Phys270

1. [10 pts] The object and the lens in the diagram below are positioned to form a well-focused, inverted image on a viewing screen. A piece of cardboard is then lowered just in front of the lens to cover the top half of the lens.
- a. [5 pts] Describe what happens to the image on the screen when the cardboard is in place.



Even though rays from the upper portion of the lens are blocked rays do come from the lower half of the lens and meet (get focused) on the screen. So we still have the image only with half the initial brightness.

- b. [5 pts] Draw a ray diagram depicting the scenario in part (a) (without the cardboard!) with the object distance s , image distance s' , and the focal length of the lens f clearly labeled. Make sure to draw the three 'special' rays from the object to the image.

