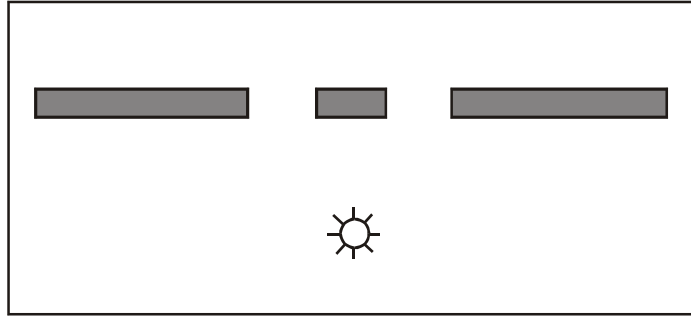
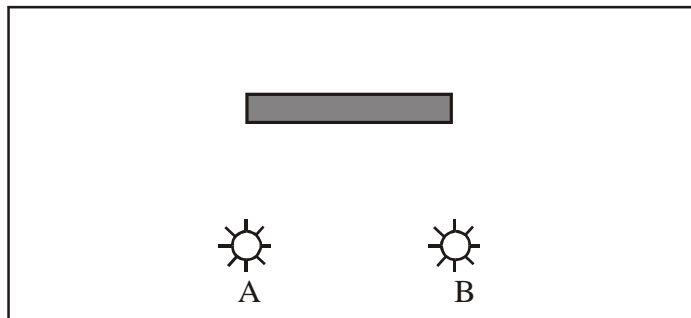


# AP 2 Optics: post lab

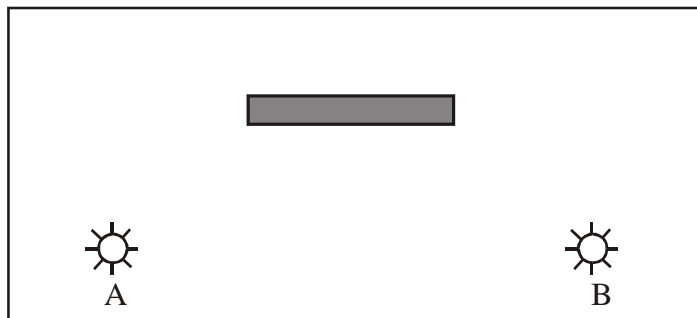
1. Draw a number of rays from the source and shade in the shadow region that results when multiple cards are used.



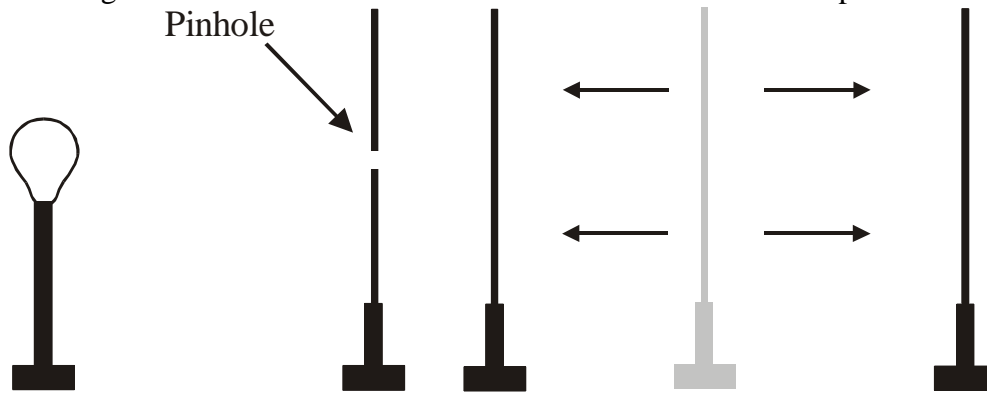
2. Draw a number of rays from each source and shade in the shadow region that results when two bulbs are turned on. Indicate the total and partial shadow regions. (Umbra and penumbra.)



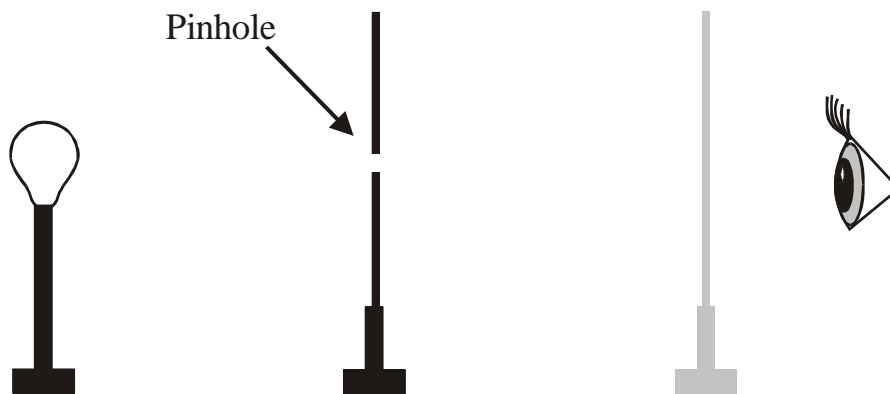
3. Draw a number of rays from each source and shade in the shadow region that results when the two bulbs are more widely separated. Indicate the total and partial shadow regions.



4. Draw a ray diagram and explain in words how the reproduction of the light bulb on the screen changes when the screen is moved closer and farther from the pinhole.



5. What would the eye "see" if the screen were removed? Draw a ray diagram to support your answer.



6. Draw rays from the top and bottom of the bulb that travel through each pinhole and reach the screen. Explain how multiple pinholes affect the reproduction of the bulb that is formed on the screen.

