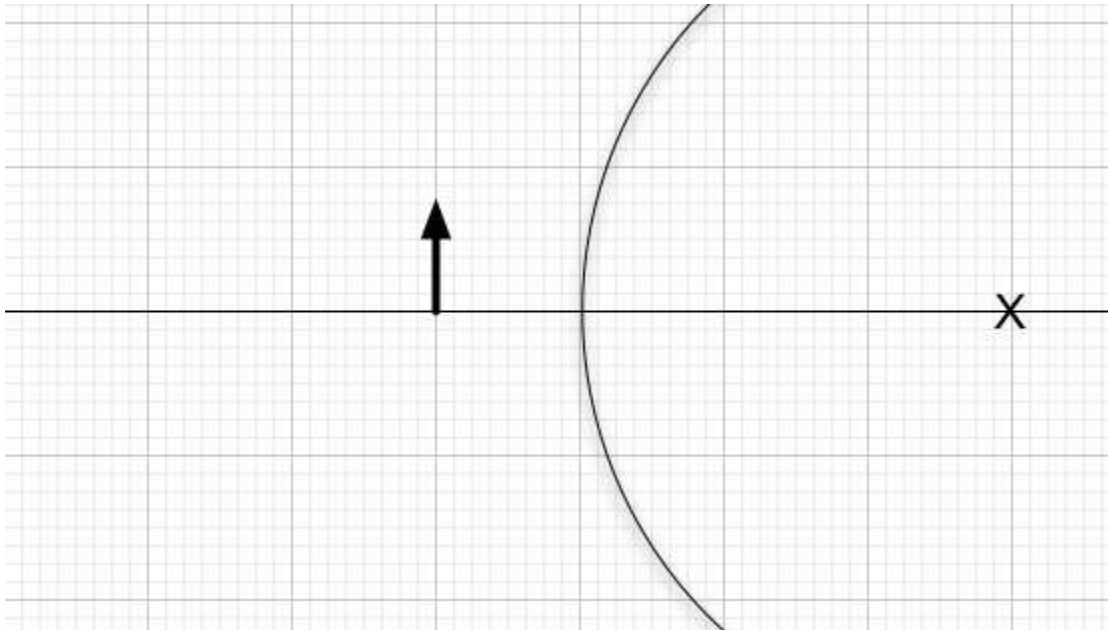


4. *Looking into a Mirror Ball*

While visiting *Ye Olde Shottle Bop*, a store selling strange and exotic objects, you come across a perfectly mirrored glass sphere. It looks pretty strange and you hold your finger near it. Your situation is presented schematically in the figure below with an arrow drawn to represent your finger.



A) On the figure, draw a ray diagram that will help you identify where the image is located.

B) Is the image real or virtual? Explain why you say so.

C) The mirror has a radius of 24 cm, the finger is a distance of 8 cm from the surface of the mirror, and the finger is 8 cm long. Calculate the location and the size of the image using the mirror equation. Does your calculation agree with your drawing? If not, explain why not.