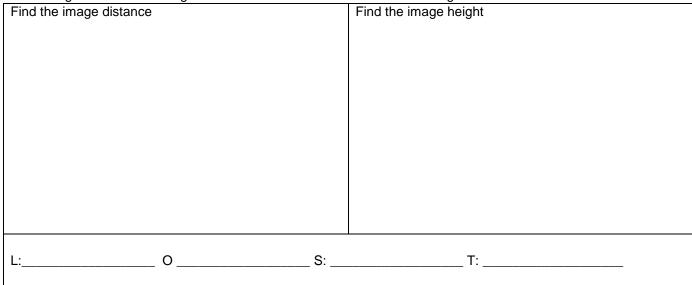
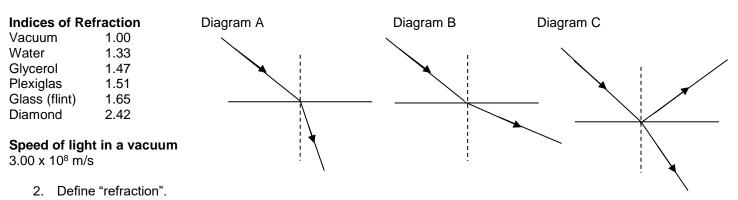
A concave mirror has a focal length of 5.0cm. An object 2.0cm high is placed 12.0 cm from the mirror. Calculate the image distance and height. Then state the characteristics of the image.



Use the information given here to help answer the questions that follow.



- At what angle would a light ray have to travel in order to **not bend** when travelling through the boundary into a medium with a different index of refraction?
- Define "angle of incidence".
- Describe the refracted ray when a ray passes into a medium with a greater index of refraction. Closer to/Farther from the normal (circle one) Slower/Faster (circle one)
- Which diagram(s) above could illustrate the passing of a light ray from water to air?
- Using diagram C as an example, give the labels that represent the following...
  - a.incident ray
  - b.angle of reflection
- \*\*\*put a, b, c, and d on Diagram C above!

- c. boundary d.refracted ray
- How does the "index of refraction" of all other media compare to that of light passing through a vacuum? (circle one) greater than less than
- How does the speed of light in all other media compare to that of light in a vacuum? greater than OR
- 10. Calculate the speed of light in glycerol.
- 11. Calculate the "index of refraction" of a medium where the speed of light through it is 1.24 x 108 m/s.