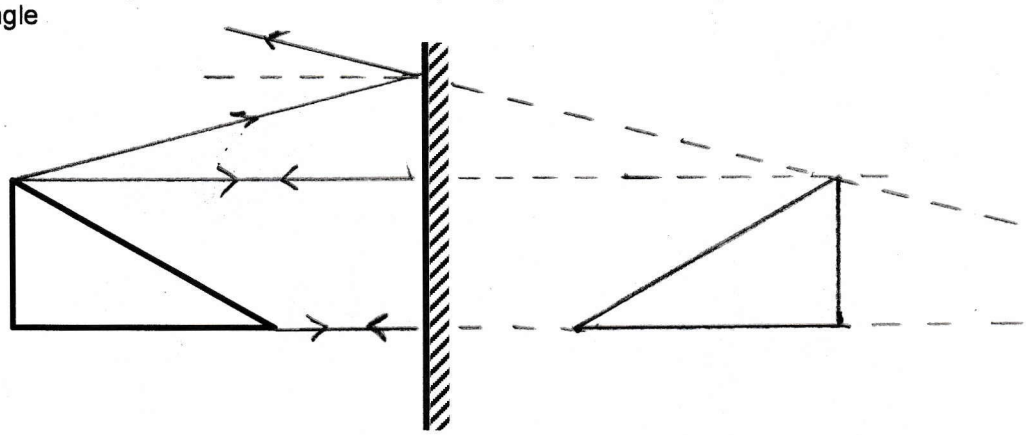
Optics Mid Unit Review Practice Questions

1. State the two parts of the law of reflection.
   1. angle of incidence = angle of reflection
   2. the normal, incident ray & reflected ray are all in the same plane

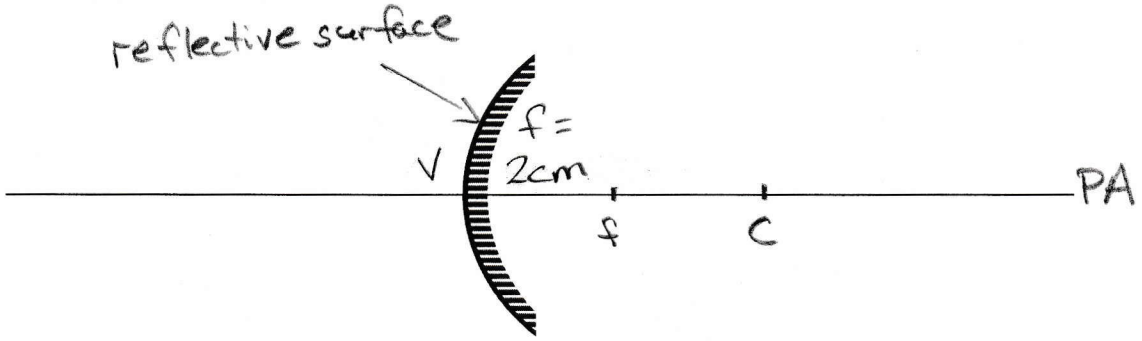
2. Draw the image of the triangle in the mirror, draw a ray diagram to show how you found the location of at least one point on the triangle



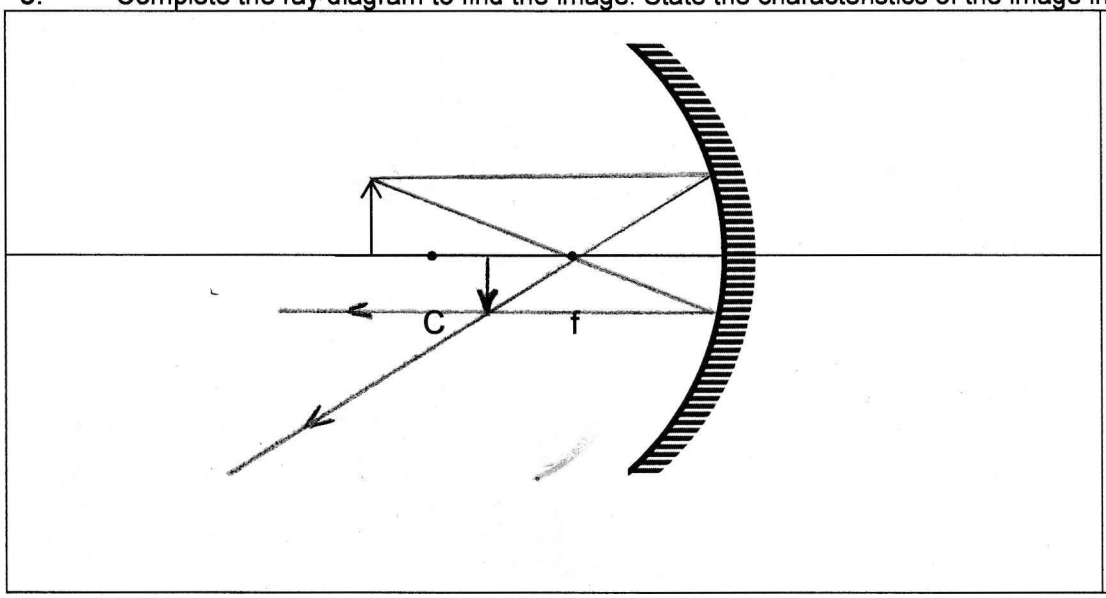
3. Cars use many different types of mirrors. What type of mirror would be the most suitable for the following uses? Explain your choice?
   a. Passenger-side rearview mirror – convex - to increase the field of view

   b. Headlights – concave - to create a focussed beam (create parallel rays)

4. The mirror below has a focal length of 2 cm. Label the following points on the diagram:
   - The reflective surface
   - The focal point (f)
   - The vertex (V)
   - The center of curvature (C)
   - The principal axis (PA)
   - The focal length

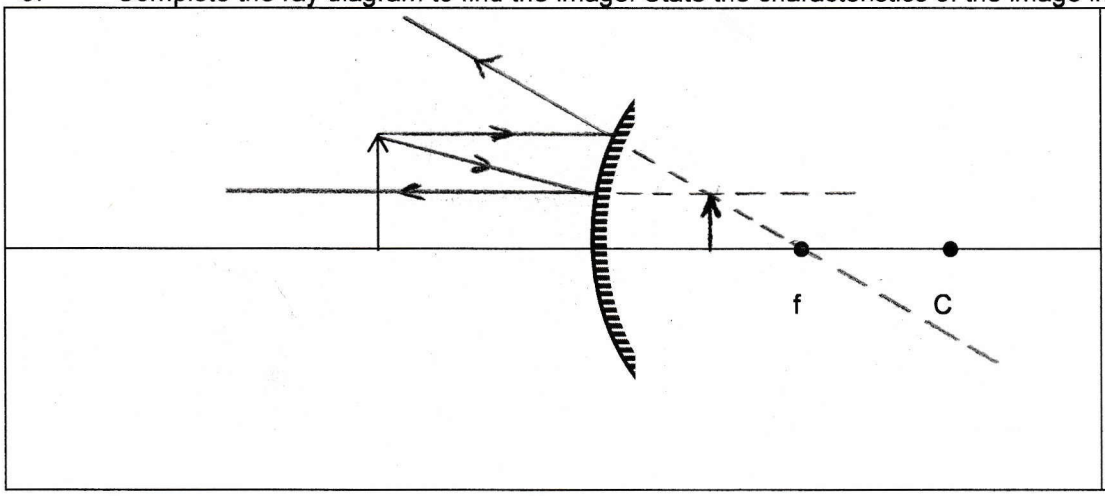


5. Complete the ray diagram to find the image. State the characteristics of the image in the space provided.



L: in front
O: inverted
S: smaller
T: real

6. Complete the ray diagram to find the image. State the characteristics of the image in the space provided.



L: behind
O: upright
S: smaller
T: virtual

Textbook Practice Questions

- Text Book – Unit 4 Optics, starting on page 399
  - Page 427, #1-4, (concave mirrors)
  - Page 436 #1-7, (convex mirrors)

answers can be found on page 571