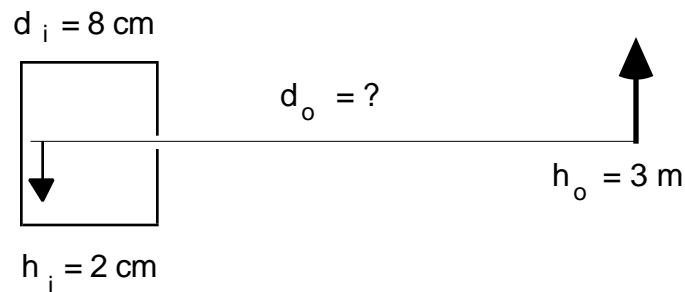


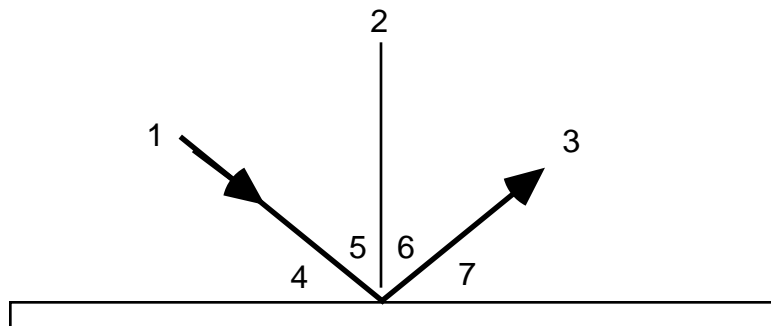
Light and Mirrors : Test-40

- 1) What is the speed of light? _____ .
- 2) The scientist Huygens found that light traveled across the diameter the Earth's orbit in 22 minutes. Find the diameter of the orbit.
_____ .
- 3) In the pinhole camera below, find the distance d_o to the object.



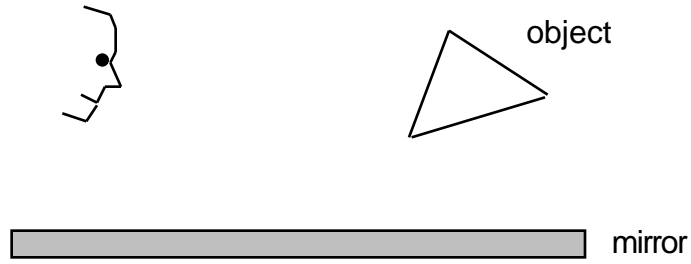
- 4) In modern cameras there is a lens. What is the main advantage of the lens ? _____
- 5) Put the correct number in the blank. (all numbers are not used)

- | | |
|------------------------|-------|
| a) angle of incidence | _____ |
| b) incident ray | _____ |
| c) angle of reflection | _____ |
| d) reflected ray | _____ |
| e) normal | _____ |



6) When locating images in a plane mirror, (using a ruler and pencil) what are the two most important rules you must follow?

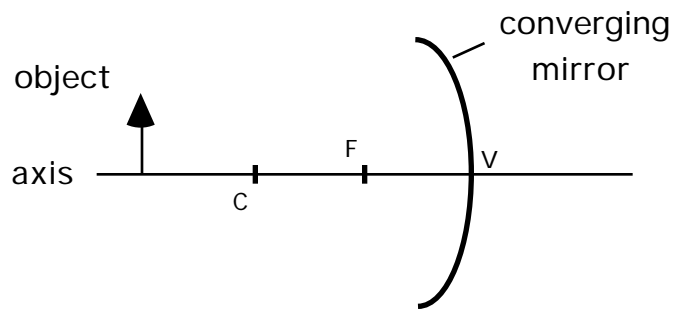
7) Locate the image using a pencil and ruler. Draw all rays.



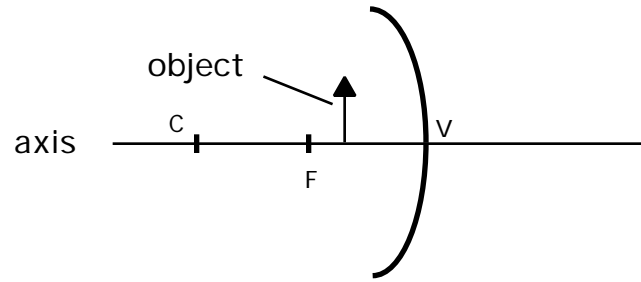
8) Which mirror can form a magnified image of an object, a concave or a convex mirror?

9) In the diagrams of the concave mirrors shown below, find the image. Draw all rays.

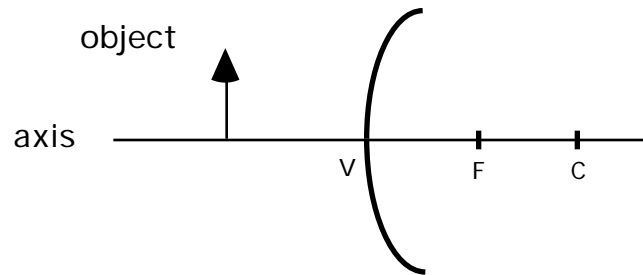
a)



b)



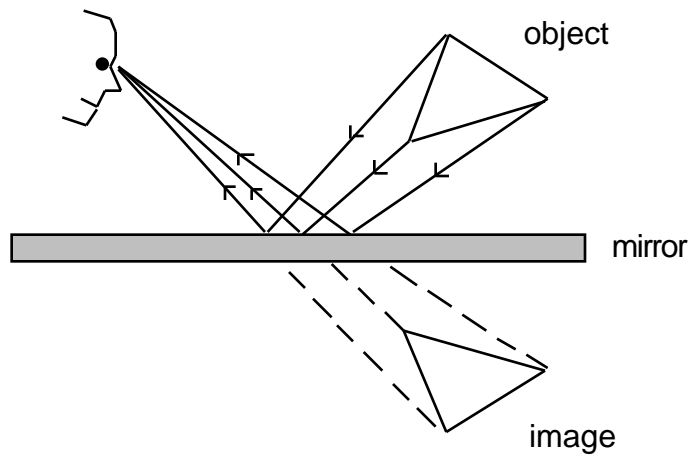
10) In the diagram of a convex mirror below, locate the image.



11) If you look into a concave mirror from a distance of two times the distance from the vertex to the focus, what will you see? Explain using a diagram.

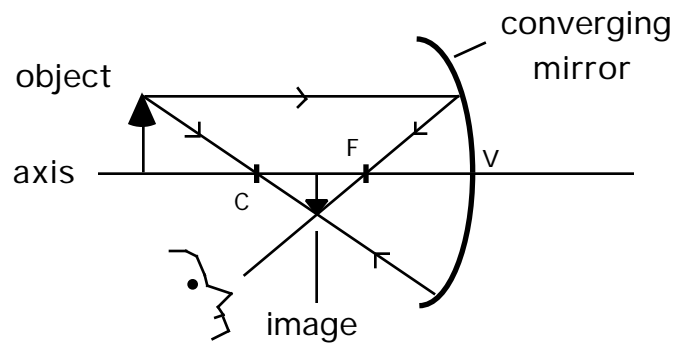
Answers:

1) 3.0×10^8 m/s, 2) 4.0×10^{11} m, 3) 12 m, 4) It lets in more light so pictures can be taken faster., 5) a) 5, b) 1, c) 6, d) 3, e) 2., 6) Light rays travel in straight lines and the angle of incidence equals the angle of reflection., 7)

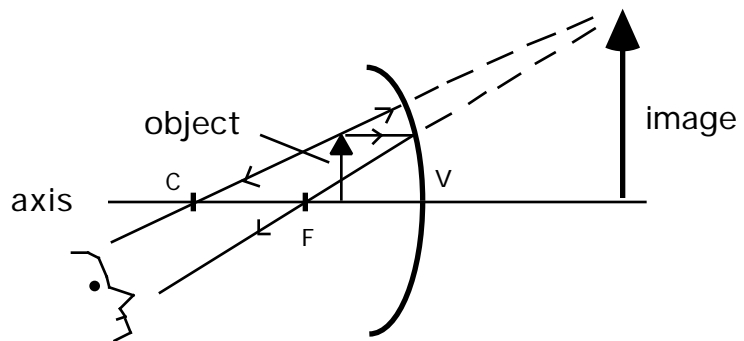


8) concave,

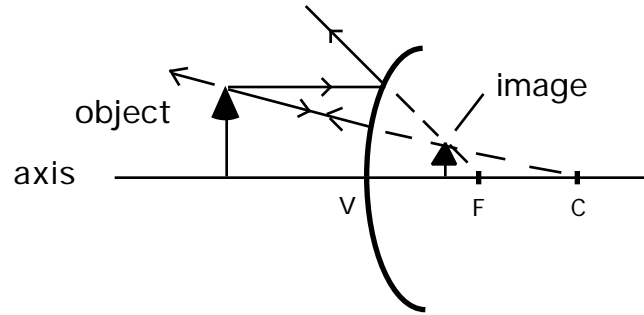
9)a)



b)



10)



11) You will see an upside-down, same size image of your face.

