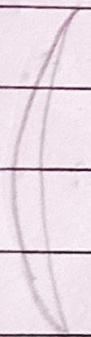


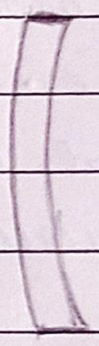
HW

1. Differentiate between concavo-convex lens and convexo convex lens.

ans. Concavo Convex lens	convexo - concave lens
→ It is thinner at outer boundary while thicker at middle	→ It is thinner at middle and thicker at outer boundary
→ It has one surface concave and other surface convex	→ It has one side convex and other side concave.
→ The concave side has the greater curvature	→ The convex side has greater.



concavo convex lens



convexo convex lens

(2) What is the reason behind the sparkling of diamonds?
ans → The refractive index of Diamond with respect to air is 2.42.

→ The value of critical angle is around 24° .
→ When light enters from any external source in a well cut diamond, it suffers multiple reflections inside the diamond.

→ Thus the light entering the diamond from all direction emerges out from some direction.
→ So, when we look from these directions the diamond appears sparkling.

(3) In which case the converging will be more biconvex or plano convex? Justify.

ans - The biconvex lens converging will be more higher angle of curvature results in shorter focal length due to which the light are refracted at a greater angle.