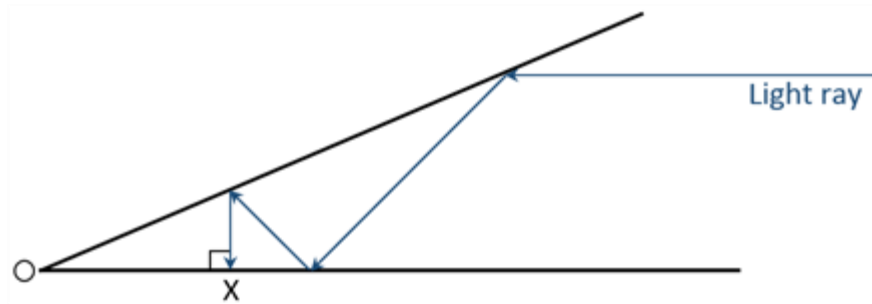


Challenge 50: Mirrors

Two mirrors are joined at a fixed angle at O , and a ray of light is shone into the angle between them, parallel to one of the mirrors. As shown in the diagram, it reflects three times before hitting the lower mirror at X at an angle of 90° , causing the ray to re-emerge along its original path.



- What is the angle between the two mirrors?
- If the distance OX is 1cm , then what was the distance between the original ray and the lower mirror?