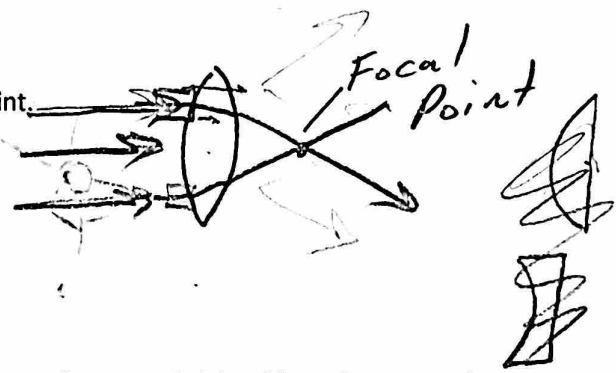


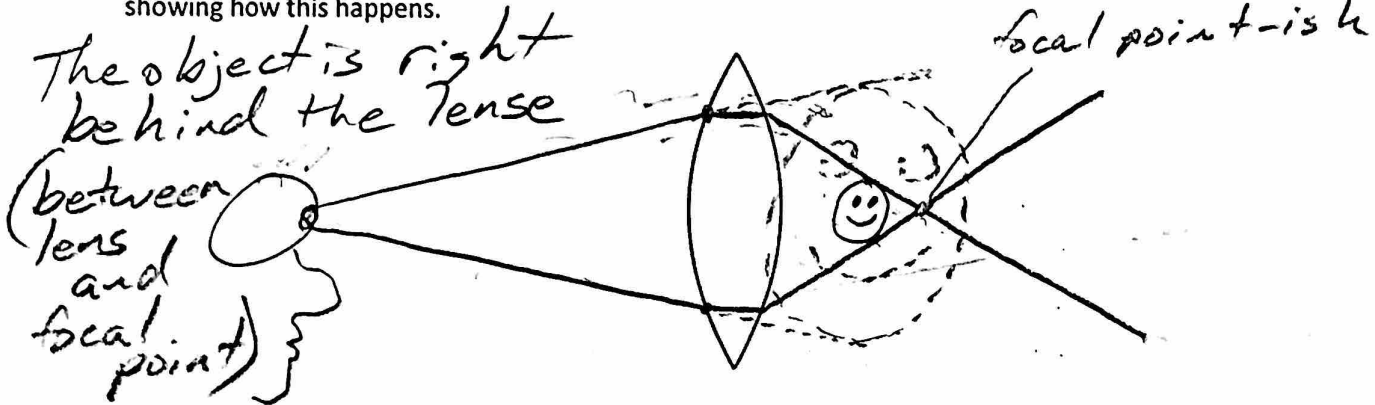
1. Draw a convex (bi-convex) lens and illustrate its focal point.



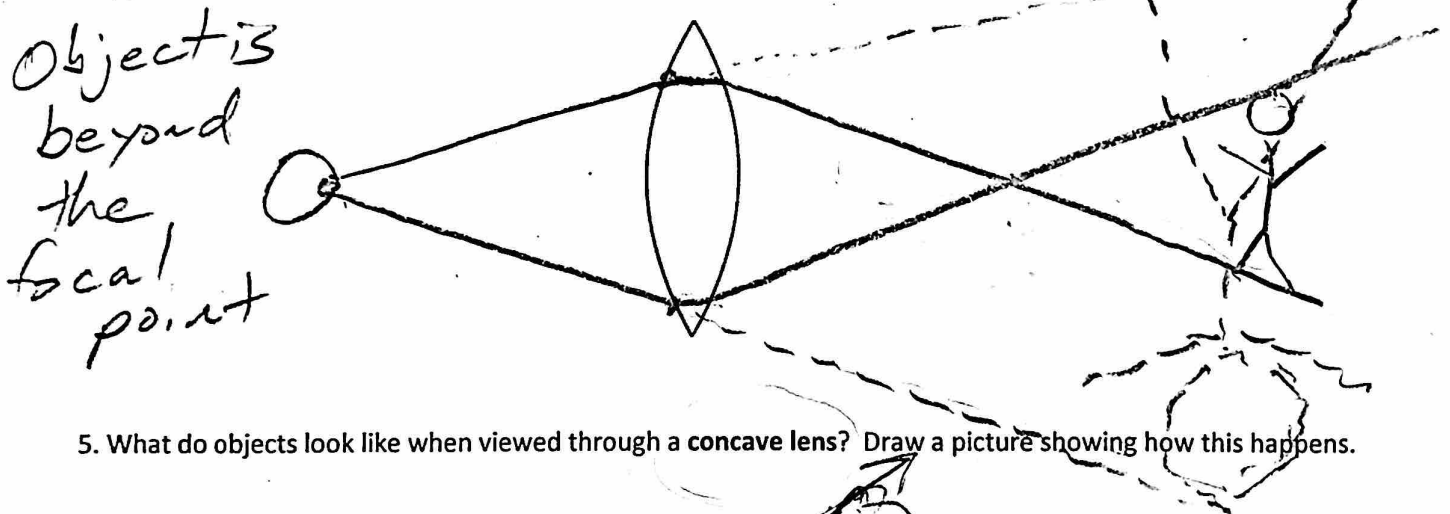
2. Draw a concave (bi-concave) lens.



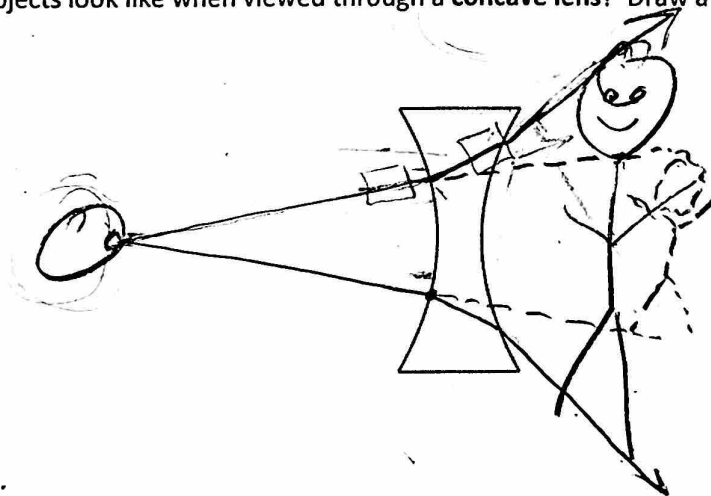
3. In what situation can a convex lens cause an object to appear larger and right-side up? Draw a picture showing how this happens.



4. In what situation can a convex lens cause an object to appear upside-down? Draw a picture showing how this happens.



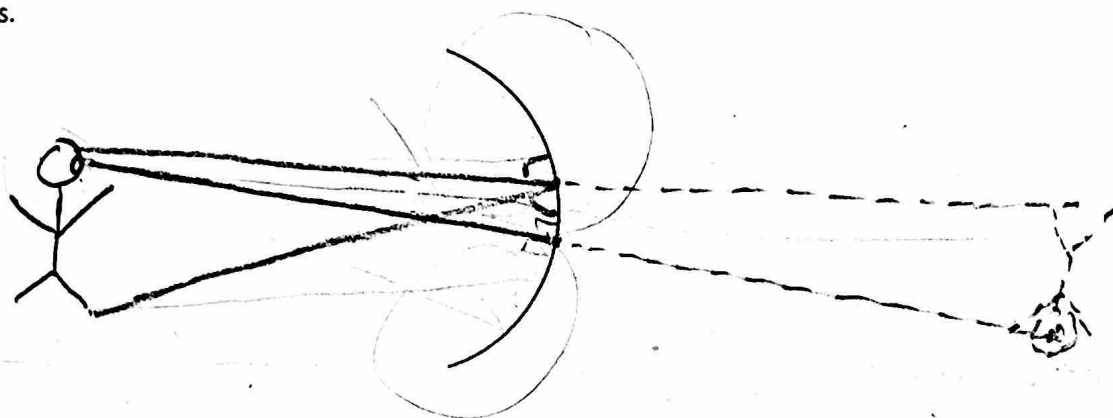
5. What do objects look like when viewed through a concave lens? Draw a picture showing how this happens.



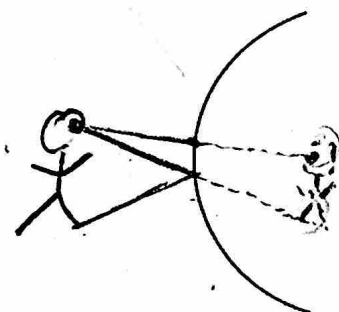
6. In what situation can a concave mirror cause objects to appear larger than usual and right-side up? Draw a picture showing how this happens.



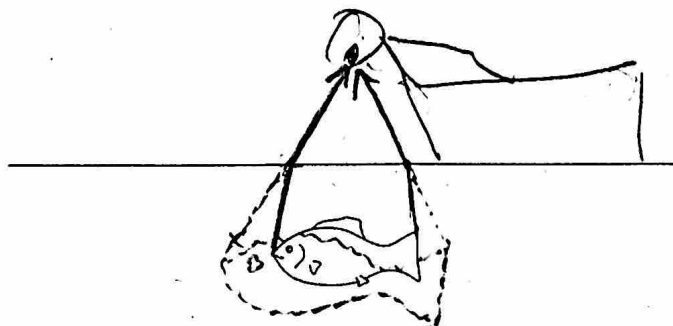
7. In what situation can a concave mirror cause objects to appear upside-down? Draw a picture showing how this happens.



8. What do objects look like when viewed in a concave mirror? Draw a picture showing how this happens.



9. When viewed from a boat, do fish appear larger or smaller than they really are? Draw a picture showing how this happens.



Air
Refraction
water
(below)