Ray diagrams for mirrors

Copy the ray diagrams below onto plain paper, and complete them.

- You will find this easier if you make the diagrams larger than they are here. But make sure you leave enough space around the diagram to complete it.
- Follow the method below to help you to complete your diagrams.

Method

A Draw a ray of light from the object to the mirror. Put an arrow on it to show which way the light is travelling.

B Draw a normal at right angles to the mirror where your light ray hits the mirror. Use your protractor to make sure the angle is exactly 90°.

C Carefully measure the angle of incidence.

D Draw the reflected ray so that the angle of reflection is the same as the angle of incidence. Use your protractor to make sure the angle is drawn accurately.

E Repeat steps A to D for the other diagrams.

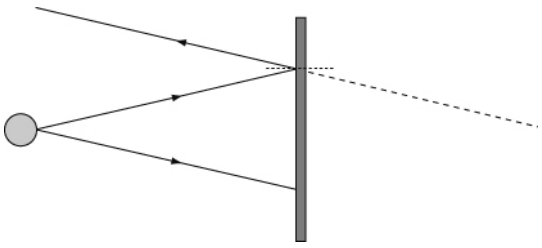
F Extend your two reflected rays behind the mirror until they meet. The point where they meet is where the image will be.

G Check how accurate your drawing is by measuring the distances between the object and the mirror and between the mirror and the image. If you have drawn it accurately, the two distances should be the same.

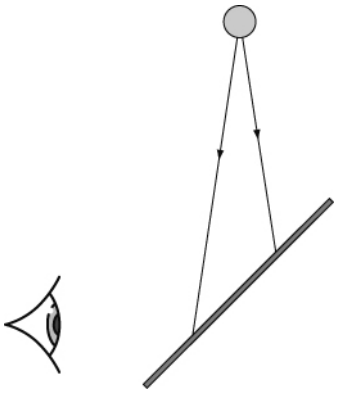
Apparatus

- protractor
- pencil
- ruler

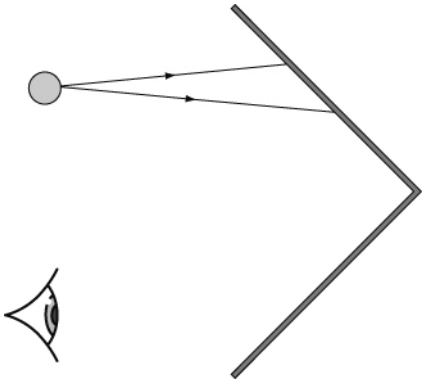
1



2



3



I can…

- draw accurate ray diagrams
- use a ray diagram to work out the position of the image in a mirror.