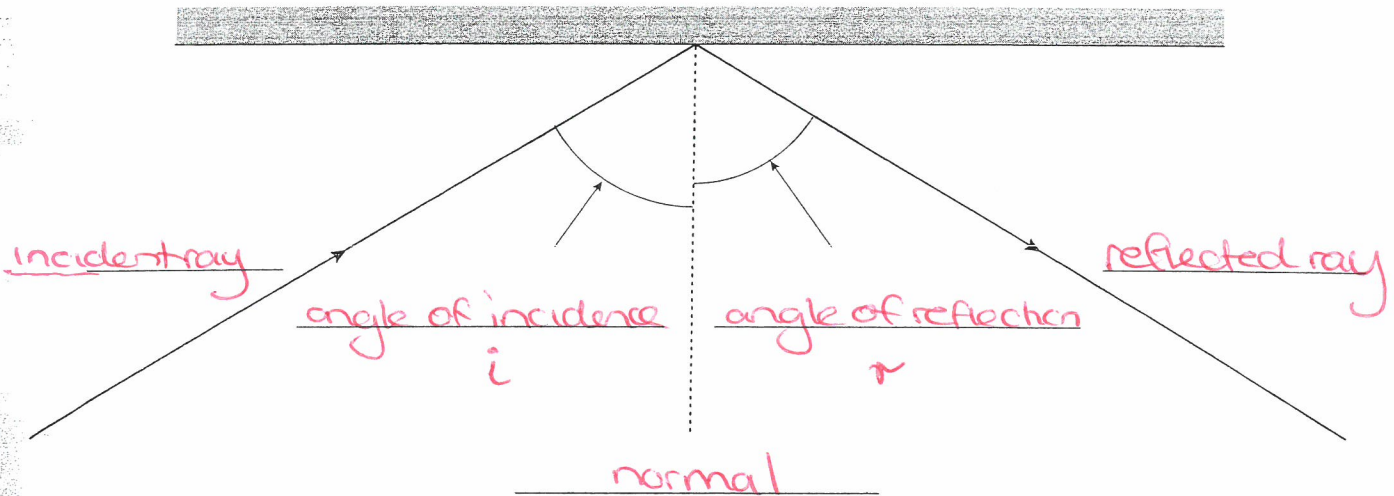




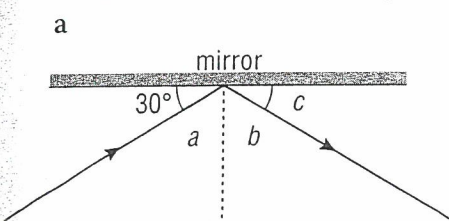
Light rays changing directions

Skills: Understanding, Interpreting, Numeracy

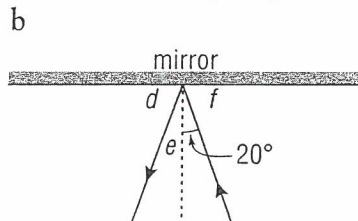
- Write your name as it would be seen in a flat (plane) mirror.
- The diagram below shows a light ray reflecting off a mirror. Identify the appropriate parts of the diagram by matching them with the correct terms.
 - normal
 - angle of incidence i
 - incident ray
 - reflected ray
 - angle of reflection r



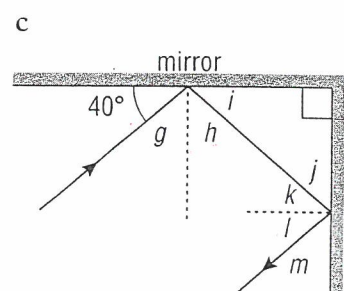
- Calculate the labelled angles in each of the following diagrams.



$a = 60^\circ = i$
 $b = 60^\circ = r$
 $c = 30^\circ$



$d = 70^\circ$
 $e = 20^\circ = r$
 $f = 70^\circ$



$g = 50^\circ = i$ $h = 50^\circ = r$
 $i = 40^\circ$ $j = 50^\circ$
 $k = 40^\circ$ $l = 40^\circ$
 $m = 50^\circ$

Light rays changing directions

Skills: Understanding, Interpreting, Numeracy

- 4 Explain what you notice about the incoming and final outgoing light rays in part c of Question 3.

They are parallel but in opposite directions

- 5 Use ray-tracing to predict where Tom will see his image when he looks into the mirror and how big his image will be. Do this by using a ruler to extend some of the rays shown.

