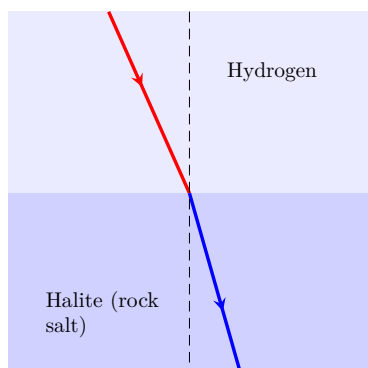


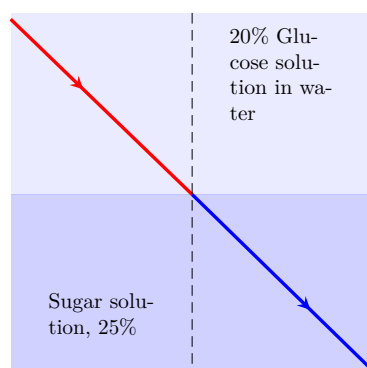
Measuring Angles a

Refraction

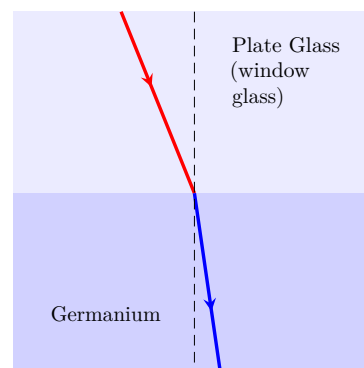
For each of the following ray diagrams measure the angles of incidence, i , and refraction, r .



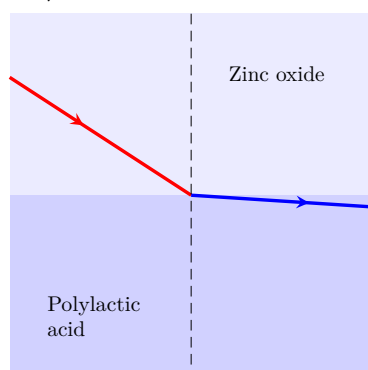
1) $i =$
 $r =$



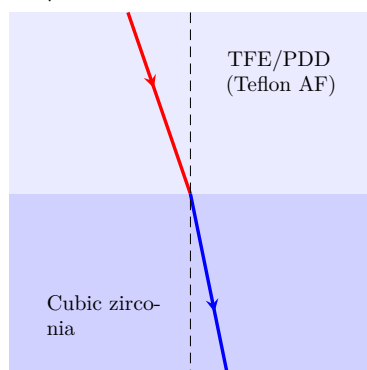
2) $i =$
 $r =$



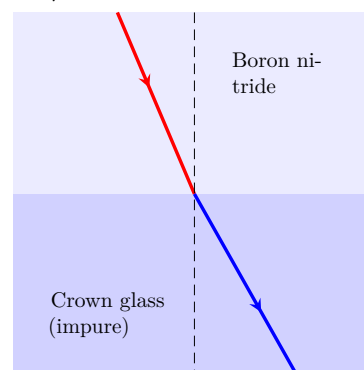
3) $i =$
 $r =$



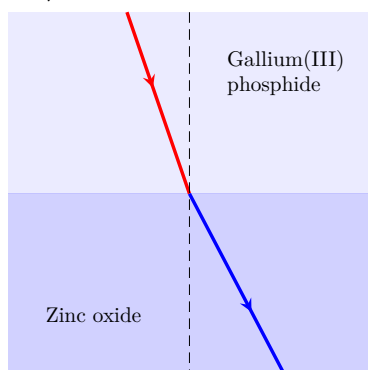
4) $i =$
 $r =$



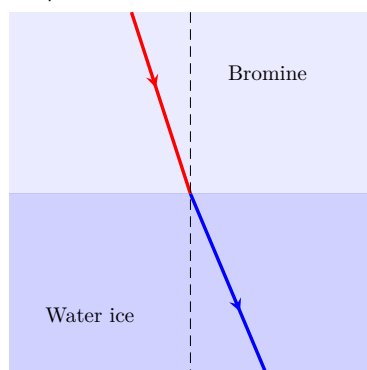
5) $i =$
 $r =$



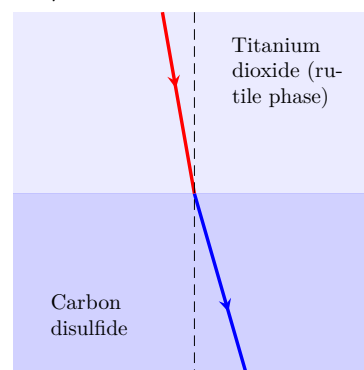
6) $i =$
 $r =$



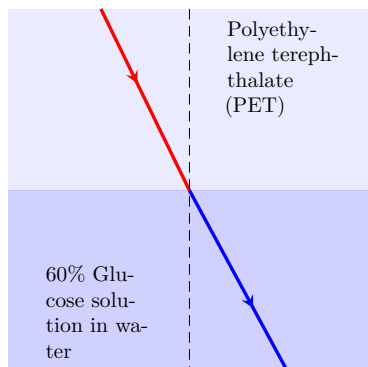
7) $i =$
 $r =$



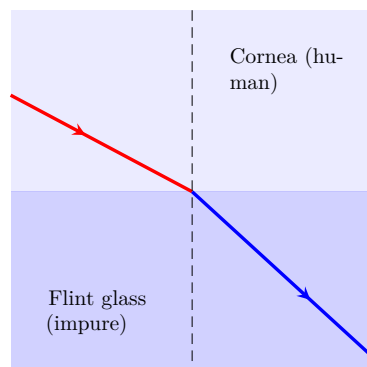
8) $i =$
 $r =$



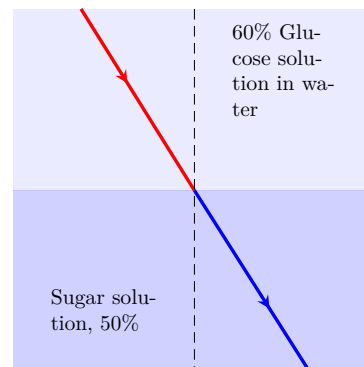
9) $i =$
 $r =$



10) $i =$
 $r =$



11) $i =$
 $r =$



12) $i =$
 $r =$

Answers

- 1) $i=24^\circ$, $r=16^\circ$
- 2) $i=46^\circ$, $r=46^\circ$
- 3) $i=22^\circ$, $r=8^\circ$
- 4) $i=57^\circ$, $r=86^\circ$
- 5) $i=19^\circ$, $r=12^\circ$
- 6) $i=23^\circ$, $r=29^\circ$
- 7) $i=19^\circ$, $r=28^\circ$
- 8) $i=18^\circ$, $r=23^\circ$
- 9) $i=10^\circ$, $r=16^\circ$
- 10) $i=26^\circ$, $r=28^\circ$
- 11) $i=62^\circ$, $r=48^\circ$
- 12) $i=32^\circ$, $r=32^\circ$