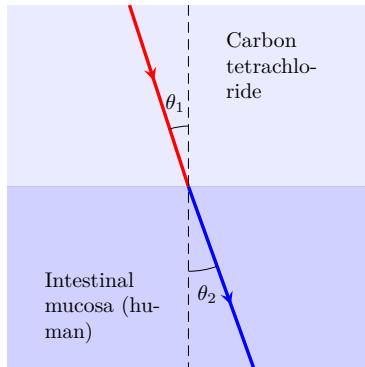


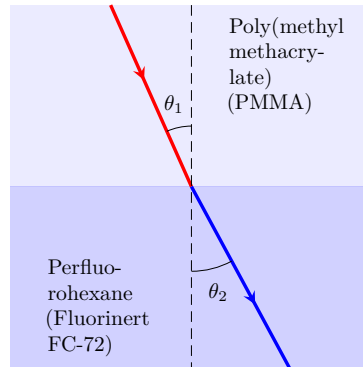
Optical Density

Refraction

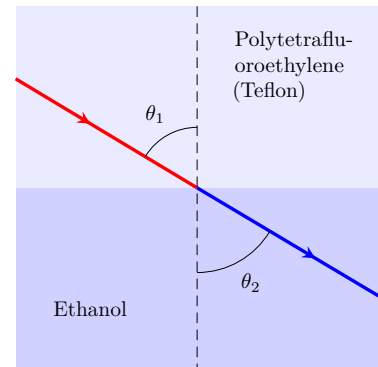
For each of the following ray diagrams identify the more optically dense material.



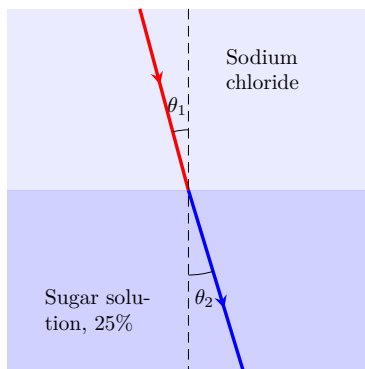
1)



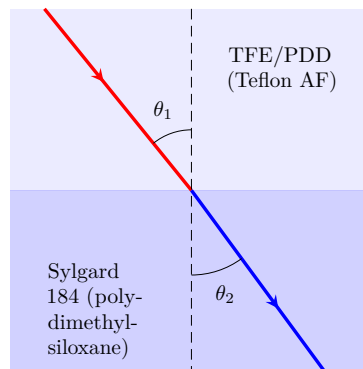
2)



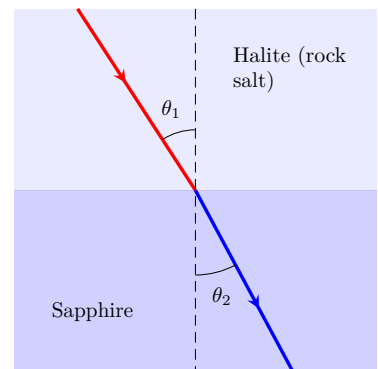
3)



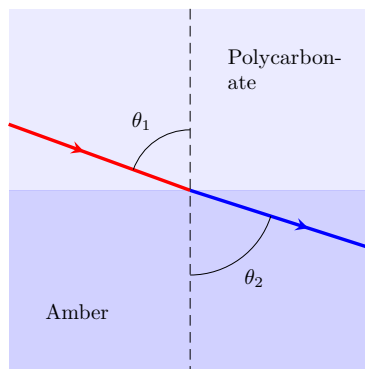
4)



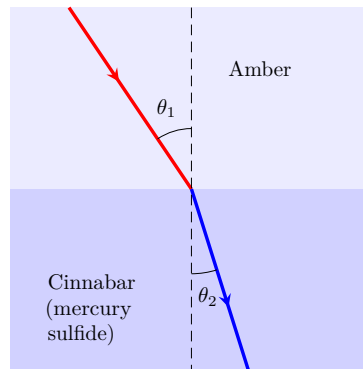
5)



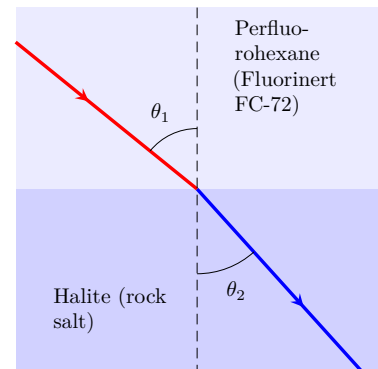
6)



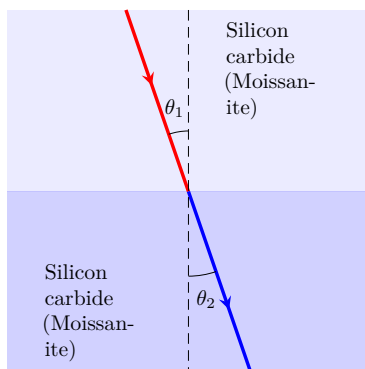
7)



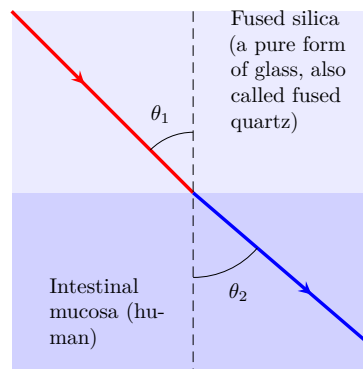
8)



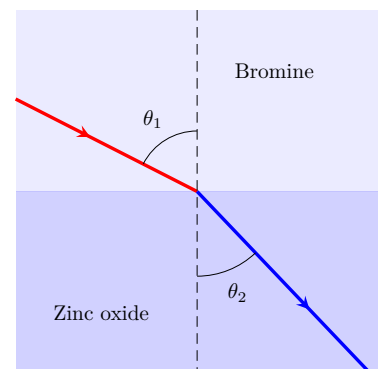
9)



10)



11)



12)

Answers

- 1) Carbon tetrachloride
- 2) Poly(methyl methacrylate) (PMMA)
- 3) Polytetrafluoroethylene (Teflon)
- 4) Sodium chloride
- 5) Sylgard 184 (polydimethylsiloxane)
- 6) Sapphire
- 7) Polycarbonate
- 8) Cinnabar (mercury sulfide)
- 9) Halite (rock salt)
- 10) Silicon carbide (Moissanite)
- 11) Fused silica (a pure form of glass, also called fused quartz)
- 12) Zinc oxide