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Answers to NCERT/CBSE PHYSICS Class 12(Class XII)textbook Exercise and Additional exercise

CHAPTER Nine

Ray Optics

EXERCISES

- 9.23** You are given prisms made of crown glass and flint glass with a wide variety of angles. Suggest a combination of prisms which will
- deviate a pencil of white light without much dispersion,
 - disperse (and displace) a pencil of white light without much deviation.

9.23 The dispersion will be more if refractive index is more and angle of the prism is greater.

- To deviate without much dispersion, use the second prism of higher refractive index with smaller angle.

Place the bases in opposite directions to nullify the dispersion effect.

- To increase the dispersion, increase the angle of flint glass prism through it is still smaller than crown glass.