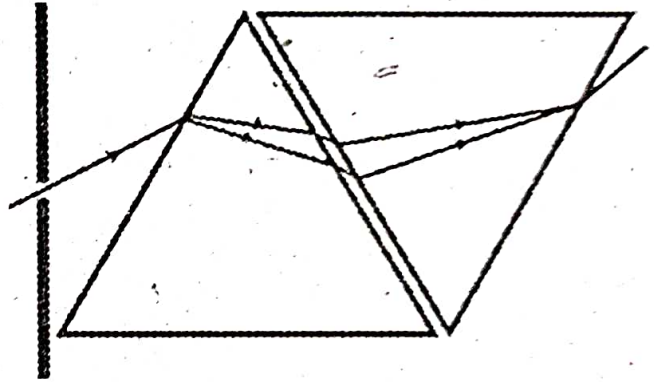


**White light passing through a prism splits up into its component colours.
Explain how this happens.**

ANSWER

The white light is separated into its component colors - red, orange, yellow, green, blue, indigo and violet. The separation of visible light into its different colors is known as dispersion. On passing through the prism, each colour of light ray is refracted by a different amount and hence, white light is split into its component colours.

- Pass white light through a prism and obtain the constituent colours on a screen. A similar prism is placed with its base



on the upper side and adjacent to the first prism as shown in the figure. What do you observe on the screen now?

In the first case, white light is dispersed into seven colours. But when the second prism is placed near the first prism the colour of light coming out from the second prism is white.

Conclusion: Sunlight consists of seven colours. When these seven colours are combined together white light is obtained.