

## KC's Multiple Select Problems

### Index of Refraction

*Optics.Index-Refraction.MS.KC.1:* White light enters a glass prism, but the color components of the light are observed to emerge from the prism. Which one of the following statements *best* explains this observation?

- (a) The separation of white light into its color component is due to the increase in the speed of light within the glass.
- (b) Some of the color components of the white light are absorbed by the glass and only the remaining components are observed.
- (c) The index of refraction of the glass depends on the wavelength, so the color components are refracted at different angles.
- (d) Only some of the color components are refracted by the glass; and these are the ones that are observed.
- (e) White light is separated into its color components by total internal reflection within the prism.