

Problems discussed in the videos:

Videos (5) – (7)

In a DVD player, by approximately what factor can one expect to increase the density of bits along a track if the laser is a blue laser rather than a red laser? Explain.

Video (8)

Light is incident normal to a diffraction grating that has 1.06×10^4 lines per cm. The first bright fringe away from the center is at an angle of 30° from the axis. What is the frequency of this light?

Videos (8) – (10)

(A) Find the lens needed to correct the distance vision of a myopic person whose far-point is at 400 cm from the eye. The lens is 2cm from the eye.

(B) If the person's near-point is 20 cm from the eye instead of the normal 25 cm, how close to the eye can this person see clearly with this lens?