

Q1. A farsighted person cannot see objects placed closer to 50cm. Find the power of the lens needed to see the objects at 20cm.

Solution:

For sighted person, lens formula is

$$\frac{1}{v} - \frac{1}{u} = \frac{1}{f} \Rightarrow \frac{1}{-50} - \frac{1}{-20} = \frac{1}{f}$$

$$f = \frac{1}{3} \text{ m}$$

$$\text{Power, } P = 1/f = 3\text{D}$$