Answer on Question #43371- Physics-Optics

Find the effective power of the combination of two lenses in contact having powers (1) +5D and +3D (2) +5D and -3D

Solution

The effective power of the combination of two lenses in contact having powers \mathcal{D}_1 and \mathcal{D}_2 is

$$D_{eff} = D_1 + D_2.$$

(1)
$$D_{eff} = +5D + (+3D) = +8D$$
.

(2)
$$D_{eff} = +5D + (-3D) = +2D$$
.

Answer: (1) + 8D; (2) + 2D.