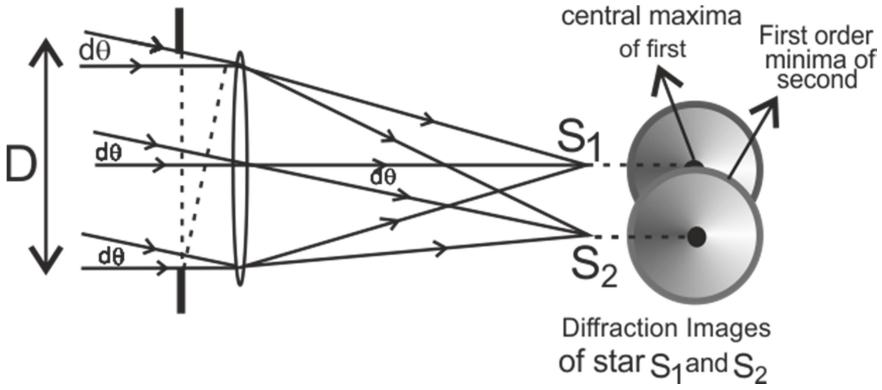
Resolving power of the Telescope

The reciprocal of the smallest angular separation (dθ) between the two objects (say stars) whose images can be seen through the telescope separately, is known as resolving power of the telescope.



i.e., R.P. = $\frac{1}{d\theta}$

Where, dθ is called the angular resolution of the telescope.

For a telescope with objective lens of aperture D.

$$d\theta = \frac{1.22\lambda}{D}$$

so, resolving power is