as constructed an astronomical telescope using two convex lenses, A and B, of focal length 100 cm respectively.

... lens has to be used as the objective ?

.....

Usually it is convenient to use a telescope in **normal adjustment** to view an object. State the reason for this.

.....

When the telescope is used in normal adjustment position, where will the final image be formed ?

.....

What is the magnifying power of the telescope in normal adjustment when viewing a distant object ?

.....

(c) (i) Calculate the distance between the eye-piece and the best position of the eye to be placed, when viewing a distant object through the above mentioned telescope in normal adjustment.

.....

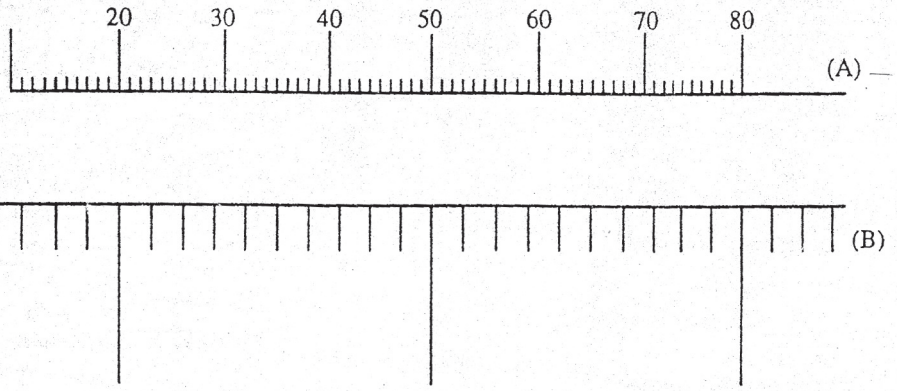
.....

.....

(ii) What is the advantage of placing the eye at the location mentioned in c (i) above ?

.....

(d) An illuminated metre scale shown in figure (A) below is placed in front of the objective of a **certain** astronomical telescope so that the 50 cm scale mark is perpendicular to the principal axis of the lenses. The enlarged scale (without the numbers) when viewed through the telescope is shown in fig (B).



(i) What is the linear magnification of the image ?

.....

(ii) Indicate correctly on the fig. (B) how the number '50' appears in the image.

(the number is not required to be drawn to the correct magnification)