

- 8 Sirius and α -Centauri are two of our closest stars. Sirius has a luminosity about 16 times greater than the luminosity of α -Centauri. Sirius is twice as far away from the Earth as α -Centauri.

The intensity of light from Sirius is I_s and the intensity of light from α -Centauri is I_α .

Which of the following is the value of $\frac{I_s}{I_\alpha}$?

- ☐ A $\frac{1}{4}$
- ☐ B 4
- ☐ C 8
- ☐ D 16

(Total for Question 8 = 1 mark)