

- 3 When the distance between the Sun and the planet Mercury is $4.60 \times 10^{10} \text{ m}$, the intensity of solar radiation at the surface of Mercury is $1.45 \times 10^4 \text{ W m}^{-2}$.

Which of the following expressions gives the power of the Sun?

- ☐ A $(1.45 \times 10^4) (\pi) (4.60 \times 10^{10})^2$
- ☐ B $(1.45 \times 10^4) (4\pi) (4.60 \times 10^{10})^2$
- ☐ C $\frac{(1.45 \times 10^4)}{(\pi)(4.60 \times 10^{10})^2}$
- ☐ D $\frac{(1.45 \times 10^4)}{(4\pi)(4.60 \times 10^{10})^2}$

(Total for Question 3 = 1 mark)