

- 24 A light wave of amplitude A is incident normally on a surface of area S . The power per unit area reaching the surface is P .

The amplitude of the light wave is increased to $2A$. The light is then focussed on to a smaller area $\frac{1}{3}S$.

What is the power per unit area on this smaller area?

- A $36P$
- B $18P$
- C $12P$
- D $6P$

Space for working