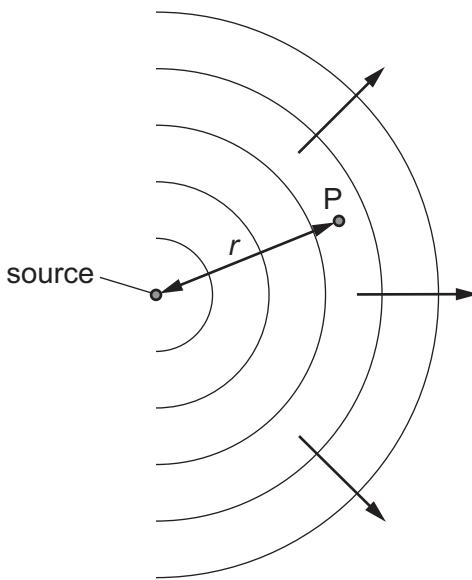


27 A small source emits spherical waves.



The wave intensity I at any point P, a distance r from the source, is inversely proportional to r^2 .

What is the relationship between the wave amplitude a and the distance r ?

- A** $a^2 \propto \frac{1}{r}$ **B** $a \propto \frac{1}{r}$ **C** $a \propto \frac{1}{r^2}$ **D** $a \propto \frac{1}{r^4}$

Space for working