

- 17 A satellite orbiting at a height of 500 km above the surface of the Earth, has two reflecting panels separated by a distance of 5.00 m. The panels reflect light of wavelength 500 nm towards an observer on the Earth's surface.

The observer views the panels with a telescope that has an aperture diameter of 10.0 cm. Assume that the panels act as point sources of light for the observer.

Which of the following is correct?

Will the two images seen by the observer be resolved?	Angular separation of two sources as measured from aperture / rad
A Yes	2.50×10^{-6}
B Yes	1.00×10^{-5}
C No	2.50×10^{-6}
D No	5.00×10^{-6}