

- 19** A double star is at a distance of 20 light years from the Earth. A telescope with a diameter of 3.0 m is used to view the star.

A light year is the distance light travels in a vacuum in one year.

What is the approximate minimum separation between the two stars of the double star that can be detected by the telescope?

- A** 5.0×10^8 m **B** 1.0×10^9 m **C** 3.5×10^{10} m **D** 3.5×10^{11} m