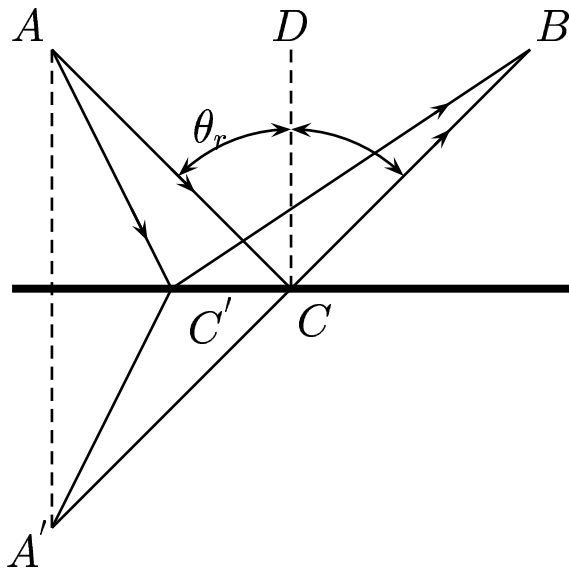


Given: Compare the time for light to travel from A to B along the path ACB , where the angle of incidence equals to the angle of reflection, i.e. $\theta_i = \theta_r$. to that along $AC'B$.



Among the three paths illustrated which path is closest to the least time?

- A) $t_{AC'B} > t_{ACB}$.
- B) $t_{AC'B} = t_{ACB}$.
- C) $t_{AC'B} < t_{ACB}$.
- D) can't be determined.

The distance from A' to B , via C' is farther than that via C ; i.e., $A'C'B > A'CB$. By inspection, one sees that $AC' = A'C'$, and $AC = A'C$. So $AC'B > ACB$. In other words, $t_{AC'B} > t_{ACB}$.

Answer **A**.