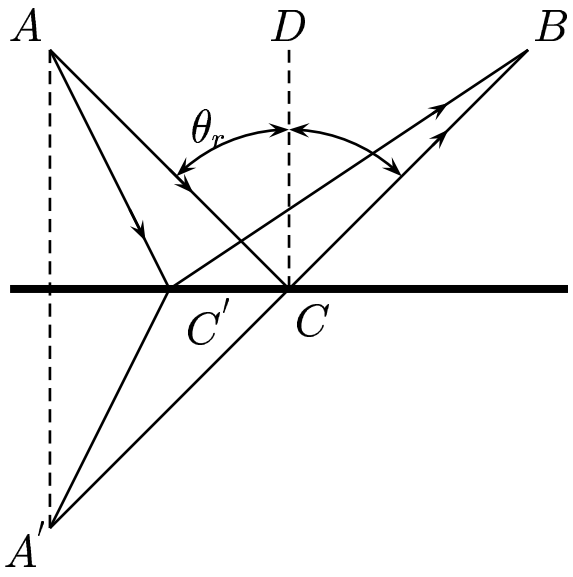
Given: Compare the time for light to travel from A to B along the path ACB, where the angle of incidence equals to the angle of reflection, i.e. $\theta_i = \theta_r$. to that along $AC'B$.



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, $\mathbf{t}_{AC^{'}B} > \mathbf{t}_{ACB}$.

Answer **A**.