Which of the following is the FASTER reaction? Explain briefly.

I 
$$CH_3CH_2Br$$
  $\xrightarrow{NaOH}$   $CH_3CH_2OH$ 

II  $CH_3CH_2Br$   $\xrightarrow{NaOH}$   $CH_3CH_2OH$ 

- A) I is faster because it has a lower E<sub>a</sub>.
- B) II is faster because it has a lower  $E_a$ .
- C) I is faster because more kinetic energy results in more high-energy collisions.
- D) II is faster because it is an exothermic reaction.
- E) I is faster because heat lowers the energy of the carbocation intermediate.