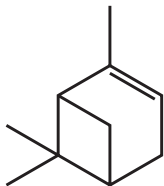
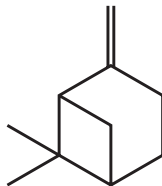


29 Pinenes are unsaturated compounds. The structures of two pinenes are shown.

α -pinene



β -pinene



A mixture of these two pinenes reacts with hot concentrated acidified KMnO_4 .

What are the molecular formulae of the organic products?

- A $\text{C}_9\text{H}_{14}\text{O}$ and $\text{C}_{10}\text{H}_{16}\text{O}_3$
- B $\text{C}_9\text{H}_{14}\text{O}$ and $\text{C}_{10}\text{H}_{14}\text{O}_4$
- C $\text{C}_9\text{H}_{16}\text{O}_2$ and $\text{C}_{10}\text{H}_{16}\text{O}_3$
- D $\text{C}_9\text{H}_{16}\text{O}_2$ and $\text{C}_{10}\text{H}_{14}\text{O}_4$