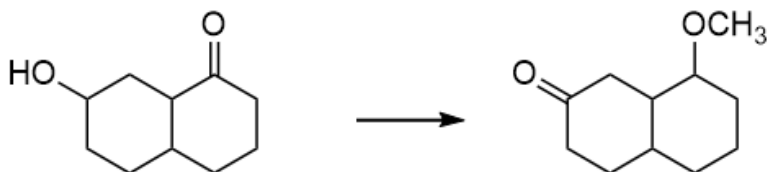




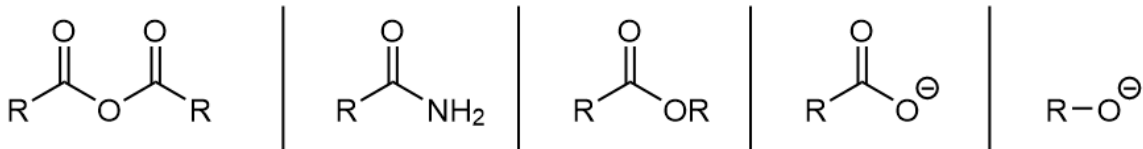
- 1 Provide the reagents needed to transform the given starting material into the desired product.



2

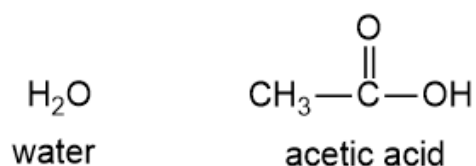


- 3 Match the functional groups to the correct names.



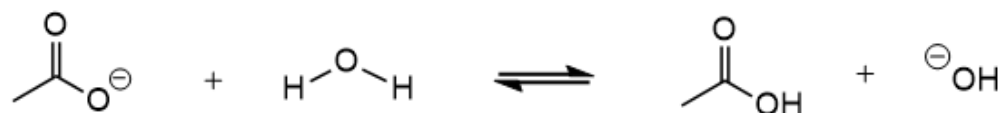
4

Which is the stronger acid? Explain briefly.



5

Provide curved arrows for the following proton-transfer reaction. Determine the direction of the equilibrium (forward or reverse favored?).



6

What predictions can you make about the relative K_a and $\text{p}K_a$ values of the two acids shown below? Justify your answers.

