Complete the following reactions. Circle the most favored products.

1.  $CH_4 \xrightarrow{500 \text{ K}}{\Delta}$ 2.  $CH_4$  +  $CI_2$   $\rightarrow$ 3. \_\_\_\_\_OH 500 K + O<sub>2</sub> 4. 5. + O<sub>2</sub> 6.  $H_2O \rightarrow$ + Cl<sub>2</sub> 7. 8. \_\_\_\_OH 500 K 9.  $\downarrow$  +  $Cl_2 \rightarrow$ 10.  $\underbrace{500 \text{ K}}_{\text{Cl}}$  $\uparrow$  +  $Cl_2 \rightarrow$ 11. ^ 12. <u>500 K</u>





