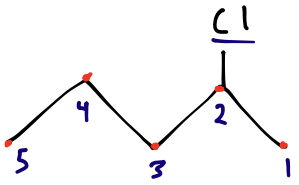
1.

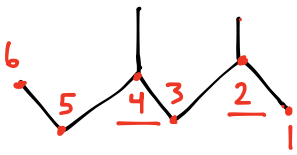


1. Find longest C chain
2. Lowest # C starts near substituent

5C = pentane

2- chloro pentane

2.

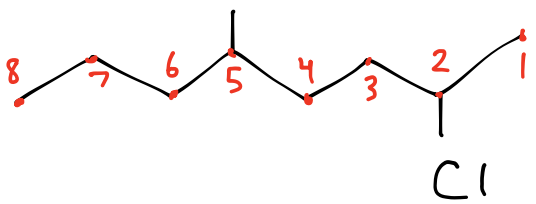


6C = hexane

2,4 - dimethyl hexane

3.

Br



8C = octane

5-bromo-2-chloro octane

$$\overset{+1}{K}\overset{+3}{Au}\overset{-1}{Cl_4}$$

$$(+1) + x + 4(-1) = 0$$

$$x - 3 = 0$$

$$x = +3$$

$$Pu + NpO_3^+ \longrightarrow PuO_2 + NpO_2^{2+}$$

$$2H_2O + Pu \longrightarrow PuO_2 + 4H^+ + 4e^-$$

$$NpO_3^+ \longrightarrow NpO_2^{2+}$$

$$NpO_3^+ \longrightarrow NpO_2^{2+} + H_2O$$

$$4 \times \left(1e^- + 2H^+ + NpO_3^+ \longrightarrow NpO_2^{2+} + H_2O\right)$$

$$\left(2H_2O + Pu \longrightarrow PuO_2 + 4H^+ + 4e^-\right)$$

$$\left(4e^- + 8H^+ + 4NpO_3^+ \longrightarrow 4NpO_2^{2+} + 4H_2O\right)$$

$$4H^+ + Pu + 4NpO_3^+ \longrightarrow PuO_2 + 4NpO_2^{2+} + 2H_2O$$