

Find the min/max no. b/w critical points (LC-2068)

eg 5 $5 \rightarrow 1 \rightarrow x \rightarrow 0$ critical point $[-1, -1]$

② $5 \rightarrow \boxed{1} \rightarrow 6 \rightarrow x$
 \downarrow
 local minima
 $\hookrightarrow CP \rightarrow \textcircled{1} \rightarrow [-1, -1]$

③ $5 \rightarrow 5 \rightarrow \textcircled{1} \rightarrow 2 \rightarrow 5 \rightarrow 1 \rightarrow x$
 $\uparrow \quad \uparrow \quad \downarrow$
 No CP local minima local maxima CP_2

Min Dist $\rightarrow 2$

Max Dist $\rightarrow 5$

ex 4 $5 \rightarrow 5 \rightarrow 1 \rightarrow 2 \rightarrow 5 \rightarrow 1 \rightarrow 2 \rightarrow x$
 $\uparrow \quad \uparrow \quad \uparrow$
 $CP_1 \quad CP_2 \quad CP_3$

max $\rightarrow (\text{last CP} - \text{first CP})$

min $\rightarrow 2 (CP_2 - CP_1) \quad CP_3 - CP_2 = 1$

$d[1, 3]$
 Min Max

