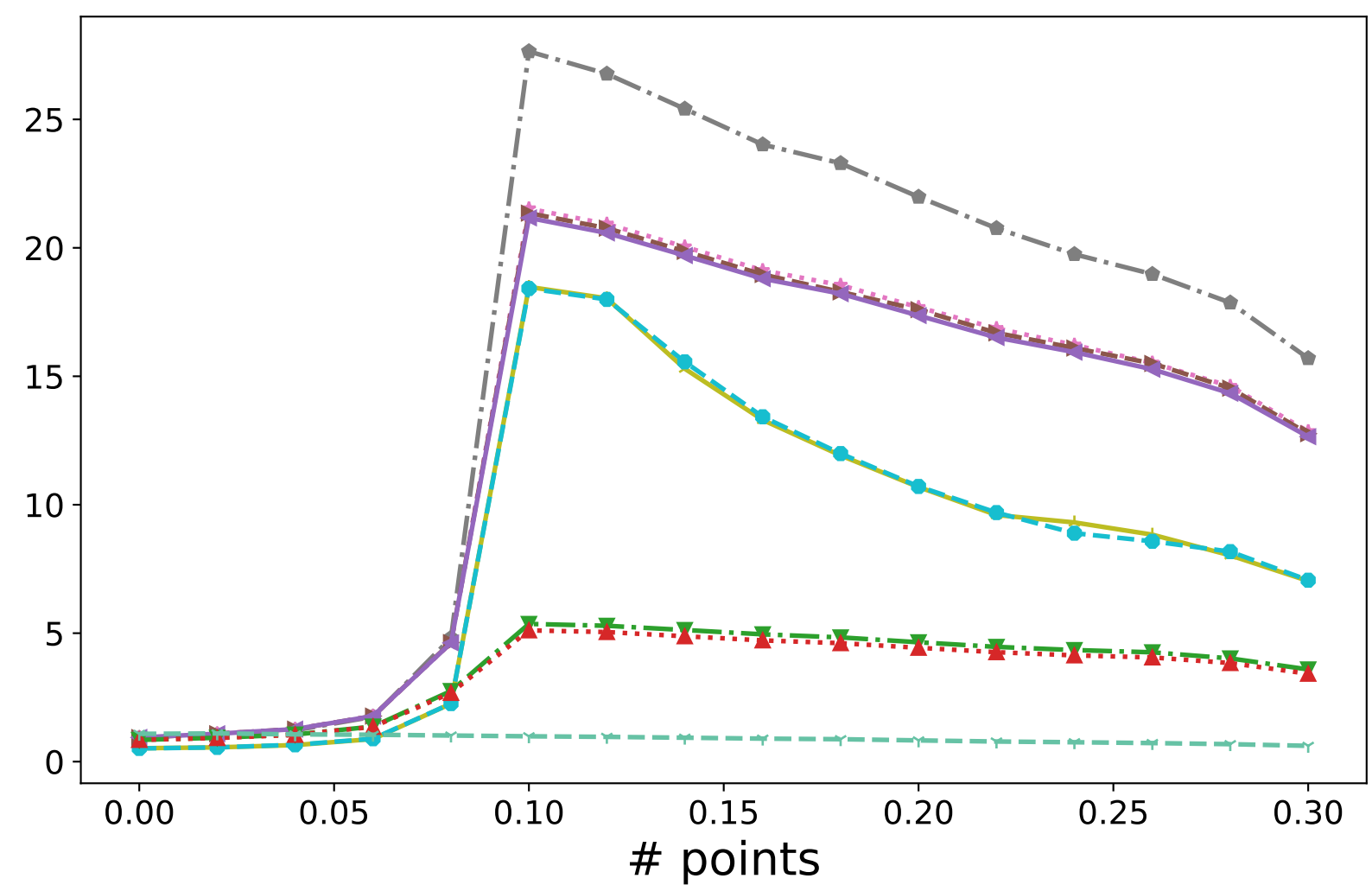


(a)  $10^7$



(b)  $10^9$

