


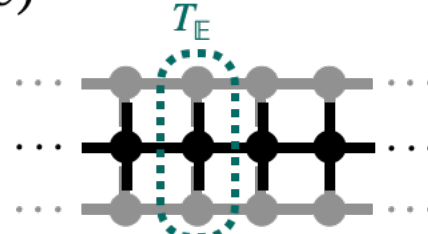
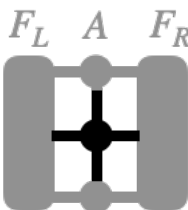








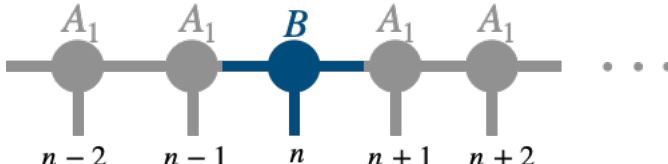
(a)  $\mathbb{E} \text{---} \bullet :=$  

  $=$  

(c)   $\approx$  

(b)   $\approx$  

(d)   $=$    
  $=$  

(e)  $|\psi_{triv}\rangle = \sum_n e^{ik_1 n}$    
 $|\psi_{non-triv}\rangle = \sum_n e^{ik_1 n}$  