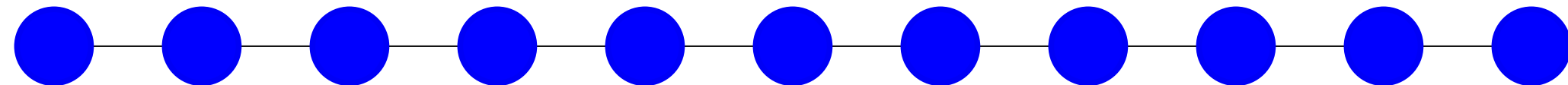
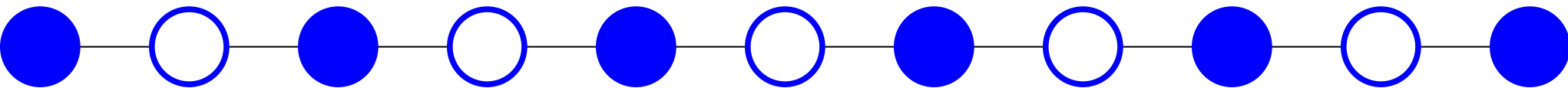


$$E_{\uparrow\uparrow} = -J - H$$



$$E_{\downarrow\uparrow} = -J$$



H_{fr}



H