Show IndSetVertexCover is **NP**-hard and in **NP**. To show it's **NP**-hard, first show that VertexCover $\leq_k$ IndSetVertexCover, since VertexCover is **NP**-hard. When given a graph G and integer k, return False when there's no vertex cover with size k, and this would be the false instance for both problems. And when there is a vertex cover of size k, only have to use IndSetVertexCover to check if there's an independent set of size k, and just return whatever it returns.