

3b) Since $\text{IndSet} = \{ \langle G, i \rangle \mid G = (V, E) \}$

• We know that on independent set $(u, v) \notin E$

• So we create a Machine M'

• Run Input (u, v) on a TM that M simulates VERTEX-COVER.

• If M accepts then reject
else if M rejects then accept.

↳ Thus by reducing vertex-cover to independent set we have shown ind-set \leq_p VERTEX-COVER.