

$$\left( v_i^{(m)}, v_i^{(m)} \right) \subset \left( \alpha_j^{(m-1)}, \beta_j^{(m-1)} \right) \Rightarrow \left[ v_i^{(m)}, v_i^{(m)} \right] \subset \left( \alpha_j^{(m-1)}, \beta_j^{(m-1)} \right).$$