

**FACT 3.** Let  $\tau$  be a cardinal such that  $cf(\tau) > \omega$ . Let  $T(\tau)$  be the space of all ordinal numbers less than  $\tau$ . Let  $A_\alpha$  be closed, unbounded subset of  $T(\tau)$ . Let  $\gamma \in T(\tau)$ . Then,  $\bigcap \{A_\alpha \subseteq T(\tau) : \alpha < \gamma\}$  is closed, unbounded and  $|\bigcap \{A_\alpha \subseteq T(\tau) : \alpha < \gamma\}| = \tau$ .