

Discussion Notes

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If X is an F_σ set, then

$$X = \bigcup_{i=1}^{\infty} F_i \quad \text{with each } F_i \text{ closed.}$$

If X is a G_δ set, then

$$X = \bigcap_{i=1}^{\infty} G_i \quad \text{with each } G_i \text{ open.}$$

A set A is *nowhere dense* iff $(\overline{A})^\circ = \emptyset$ iff for any interval I , there exists a subinterval S such that $S \cap A = \emptyset$.