Definition 6.15. *Let $I \subseteq \mathbb{R}$ be a set, $x_0 \in \overline{\mathbb{R}}$ an accumulation point for I. Let* P(x) *be a logical proposition that* [OB3] *we can evaluate for $x \in I$. We define that*

"P(x) *holds eventually for* x *tending to* x_0" *if*	*there is a neighborhood U of x_0 $\forall x \in U \cap I$,* P(x) *is true ;*
"P(x) *frequently holds for* x *tending to* x_0" *if*	*for every neighborhood U of x_0 $\exists x \in U \cap I$ for which* P(x) *;*

where it is meant that the neighbourhoods are "deleted".