9.11. Let $\mathcal{W}_t = \sigma(\{W(u) - W(t)\}_{u \geq t})$, so that $\mathcal{W} = \cap_{t>0} \mathcal{W}_t$. Note that $\mathcal{T}$ is the P-completion of $\mathcal{W}$. Therefore, for all $A \in \mathcal{T}$ we can find $A_* \in \mathcal{W}$ such that $\mathrm{P}(A \triangle A_*) = 0$. By the Markov property, A_* is independent of $\mathcal{F}_t^0$ for all t. Therefore, A_* is independent of $\vee_{t>0} \mathcal{F}_t^0$. Since $A_* \in \vee_{t>0} \mathcal{F}_t^0$, it is independent of itself; hence it has probability zero or one. Because $\mathrm{P}(A) = \mathrm{P}(A_*)$, this proves that any element of $\mathcal{T}$ has probability zero or one, which is the first assertion. Blumenthal's zero-one law follows upon applying this result to the Brownian motion $\{t(W1/t)\}_{t>0}$.