Modal correspondence

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Show that there is a modal correspondence between :

1. — Partial functionality : $\forall w \forall u \forall v((Rwu \wedge Rwv) \rightarrow u = v)$
   — and the following formula : $\diamond p \rightarrow \Box p$
2. — Functionality : $\forall w \exists v \forall u(Rwu \leftrightarrow u = v)$
   — And the formula : $\diamond p \leftrightarrow \Box p)$
3. — Density : $\forall u \forall v(Ruv \rightarrow \exists w(Ruw \wedge Rwv))$
   — And the formula : $\Box\Box p \rightarrow \Box p$
4. — $\forall w \forall u \forall v((Rwu \wedge Rwv) \rightarrow \exists t(Rut \wedge Rvt))$
   — And the modal formula : $\diamond\Box p \rightarrow \Box \diamond p$