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relation as union of functions

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Every relation  $R$  is a union of functions with the same domain as  $R$ .

This proposition of Doran is <http://planetmath.org/Equivalent3equivalent> to the <http://planetmath.org/AxiomOfChoice> Axiom of Choice.

## References

- [1] R. S. DORAN: “A Theorem which is Equivalent to the Axiom of Choice”.  
– *Elemente der Mathematik* **27** (1972).