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Sep 2001

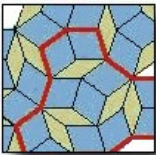
Issue 16

The dangers of trading derivatives have been well–known ever since they were catapulted into the public eye by the spectacular losses of Nick Leeson and Barings Bank. **John Dickson** explains what derivatives are, and how they can be both risky, and used to reduce risk.



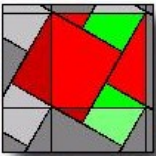
Friends and strangers

Sometimes a mathematical object can be so big that, however disorderly we make the object, areas of order are bound to emerge. **Imre Leader** looks at the colourful world of Ramsey Theory.



From quasicrystals to Kleenex

This pattern with kite–shaped tiles can be extended to cover any area, but however big we make it, the pattern never repeats itself. **Alison Boyle** investigates aperiodic tilings, which have had unexpected applications in describing new crystal structures.



On the dissecting table

Bill Casselman writes about the intriguing amateur mathematician Henry Perigal, who took his elegant proof of Pythagoras' Theorem literally to his grave – by having it carved on his tombstone.



Career interview: Aerodynamicist

Plus talks to **Christine Hogan**, programmer, sysadmin and author, now studying aerodynamics and hoping to become a member of a Formula One team.



Plus is part of the family of activities in the Millennium Mathematics Project, which also includes the NRICH and MOTIVATE sites.