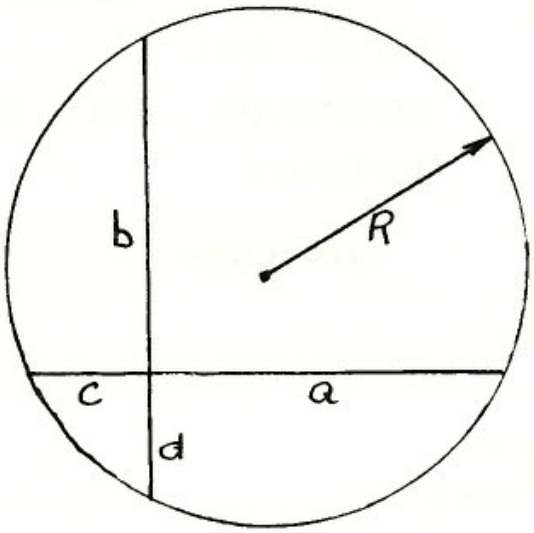
STOP PRESS: FERMAT'S PROBLEM STILL NOT SOLVED

In the last issue of **Parabola** George Szekeres (see the end of his article on Carmichael numbers) stated that one of the most famous problems in mathematics, Fermat's last theorem, appeared to have been solved.

Alas, a flaw has been discovered in Andrew Wiles' long and technical proof. Wiles' proof uses deep results from the theory of elliptic curves (see Peter Brown's article "From Pythagoras to Elliptic Curves" **Parabola** 28(1)) and unfortunately one of these results has not been proved. This was discovered by Professor John Coates of Cambridge University who is an expert in the theory of elliptic curves. Nevertheless he thought the assumed result was true and estimated that it might take another two or so years to prove it. Interestingly John Coates comes from the Taree region of NSW (attending Taree High School) and is the only Australian ever to hold a Chair at Cambridge in Pure Mathematics.

··· but this is easier:



Prove that $a^2 + b^2 + c^2 + d^2 = 4R^2$ and that $ac = bd$.