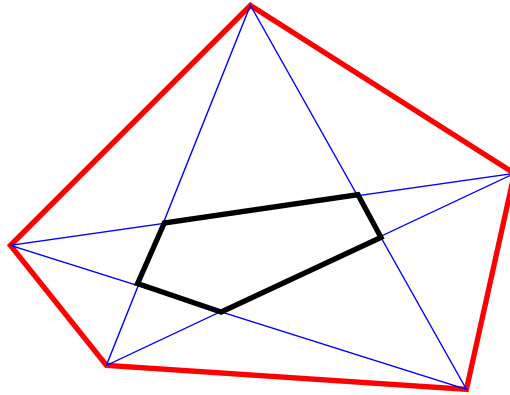


## A Pentagon Puzzle for Math. H90 Issued 26 Nov. 2002

Joining every vertex of a convex pentagon to every other vertex forms three nested figures:

- The original outer pentagon,
- An inner pentagon, and
- A five-pointed star between them.



Suppose the perimeters of these three figures are all primes; show that the three primes' sum is at least 20.