

# MATH CHALLENGE

of the ECU Math Club

of the ECU Math Club

MC1

Prove that for any positive real numbers  $a, b, c$  and  $d$ ,

$$\sqrt{ab} + \sqrt{bc} + \sqrt{cd} + \sqrt{da} \leq a + b + c + d.$$

**Submissions due:** 12:00pm, March 8, 2019

Submit solutions to Dr. Sit as hard copy to Wallace 410 or as email to [Atilla.Sit@eku.edu](mailto:Atilla.Sit@eku.edu) (PDF only).

Solutions must include all supporting work.

Top solvers will be recognized.