Pi Mu Epsilon Problem of the Month January 2009

Given a circle with center C, locate points P and Q on the circumference so that the triangle CPQ has maximum area, and justify your answer mathematically.

Problem of the Month Rules:

- **X** Submissions must include a complete mathematical justification along with the answer.
- **X** Submissions may only be made by individuals or groups of two and must be dated.
- Submissions for this problem are due before 5 p.m. on January 27, 2009; they may be given to Dr. Leigh Lunsford (Ruffner 331), Dr. Phillip Poplin (Ruffner 335), or Dr. David Shoenthal (Ruffner 344).

Pi Mu Epsilon Problem of the Month website:

http://www.longwood.edu/staff/shoenthaldw/potm.html