LVAIC MATHEMATICS CONTEST

Sunday November 2, ‘14  10—1pm
Lafayette College Mathematics Common Room, Room 218
2nd floor Pardee Hall

Coffee & Goodies:  9:30-10 am
Test Period:  10-1 pm
Pizza Lunch:   1 pm—?

Sample problems

1) How many positive integers less than 2010 have exactly 9 factors?
   (For this problem, count both 1 and the number itself as factors:
    for instance, 6 has four factors: 1, 2, 3 and 6.)

2) Two circles are placed in a square of side
   length 1 so that the circles are tangent to each other
   and at least 2 sides of the square. The centers of the
   circles are on a diagonal of the square, as in the
   picture. What is the maximum area the 2 circles can
   cover?

Sign up for the competition with your department’s
LVAIC mathematics competition organizer.
Contact Jeff Liebner for more information:
liebnerj@lafayette.edu
sites.lafayette.edu/liebnerj/lvaic-mathematics-competition

The contest is open to any undergraduate student at Cedar Crest, DeSales, Lafayette, Lehigh, Moravian and Muhlenberg.