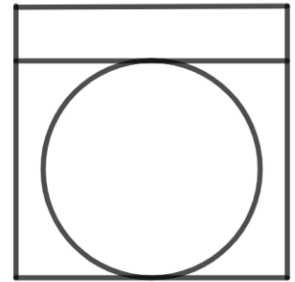
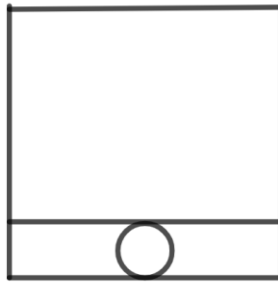
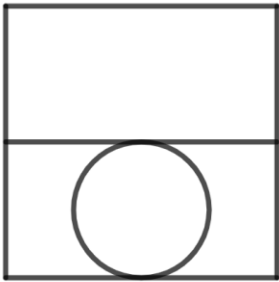


# Pi Mu Epsilon Problem of the Month

## April 2023

Consider a unit square. Draw a circle inside the figure that is tangent to the bottom side. Create a rectangle by placing a line tangent to the top of the circle. The graphs below show three examples. Find the radius of the circle that produces the largest area within the rectangle and outside the circle.



Problem of the Month Rules:

- ⌘ Submissions must include a complete mathematical justification along with the answer.
- ⌘ Submissions may only be made by individuals or groups of two and must be dated.
- ⌘ Due date: April 27, 2023 before 5 p.m. to one of Drs. Poplin, Shoenthal, Ledford, or Hoehner.

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