Pi Mu Epsilon Problem of the Month August 2016

Twenty-five rings are placed in an urn, five each of the following colors: blue, yellow, black, green, and red. Suppose you choose five rings by drawing the first two from the urn without replacement, and the last three with replacement.

Put forward an Olympian effort to find the probability that the five rings you draw in this way are all different colors.

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.
- # Due date: August 29, 2016 before 5 p.m.; they may be given to Dr. Phillip Poplin or Dr. David Shoenthal.

To get your own copy, please visit:

http://www.longwood.edu/mathematics/problemofthemonth.htm