

Department of Mathematics and Computer Science
Probability and Statistics Challenge Problems 12

Please submit solutions by Wednesday January 27, at 3pm

A monkey is to demonstrate that she recognizes colours by tossing one red, one black, and one white ball into boxes of the the same respective colours, one ball to a box. If the monkey has not learned the colours and merely tosses one ball into each box at random, find the probabilities of the following results:

1. There are no colour matches.
2. There is exactly one colour match.

Solutions to any or all of the problems may be submitted to John Sheriff (D510). If no one is in the office, just put the solution under the door. Please include your name and student number. Students with correct solutions will be acknowledged and prizes will be awarded at the end of the year based upon performance during the year. Problems and solutions are available at <http://www.cs.uleth.ca/~sheriff/statistics/challenge.htm>.