CIS 1600

Recitation Guide - Week 8

Topics Covered: Graphs, Trees, Independence

Problem 1:

We have three wooden buckets, A, B, C and we throw $n \geq 3$ metal keys in them. The key throws are mutually independent and each key is equally likely to land in each of the three buckets.

(a) Let A be the event that after all keys are thrown, bucket A has at least one key in it and similarly associate an event B with B. Are A and B independent? Justify your answer.

(b) Compute the probability that after all keys are thrown, each of the three buckets has at least one key in it. Justify your answer.