

Illinois Wesleyan University

From the Selected Works of Lawrence N. Stout

Summer June, 1987

Problems

Lawrence N. Stout, *Illinois Wesleyan University*

Problems

1268. Proposed by Lawrence Stout, Illinois Wesleyan University, Bloomington.

An experiment with probability p of success is repeated. Each time a failure occurs, \$1 is put into a kitty. Each time a success occurs, the contents of the kitty are paid out as a jackpot.

- a. What is the expected waiting time until the kitty reaches $\$n$ for the first time starting from an empty kitty?
- b. What is the expected waiting time until a jackpot of exactly $\$n$ is won?