Problem of the Week

Week 5, due February 17th 11.59pm

NAME: _____

NAU Email: _____

Instructor: _____

Please write clean, neat and complete solutions to the problem in order to receive full credit. Your job is to convince me, or really anybody who reads this document, that you understand the problem and are able to communicate what you are thinking about. Please submit your solutions through Gradescope(https://www.gradescope.com/) by the indicated deadline. You might need to create an account with your NAU email. To enroll into the Problem of the Week course use entry code: NYZ56P. Good luck and have fun!

PROBLEM. *Escape the prison*

A king wants to give a convict another chance to escape prison. The convict is blindfolded, and instructed to select one ball from each of three urns. The guards place the three balls in a fourth urn. Then the blindfolded man draws a ball from this fourth urn. If the ball is white, he is let go free. What is the probability of escaping prison if the number of balls of various colors in the three urns is as follows:

	white	red	black
urn 1	2	5	3
urn 2	5	2	3
urn 3	3	3	4