

Philosophy 4300: Decision Theory
Spring 2019

Homework 3 – due in class on Friday, March 8th.

You should feel free to work with others on this homework and to talk to me about it. However, any work you produce must be your own.

1) Go back to page 9 in Resnik and look at example 1-3. Resnik says, “later we will see that you should bet on the American League if you think its chances are better than 5 in 12.” Show that this is correct.

2) Do Resnik’s problem 2 (a, b, c, and d) on page 54

-- NOTE: you are encouraged to leave answers in the form of unsolved arithmetic problems when it more clearly shows how you got the answers.

3) Do Resnik’s problem 4 on page 54

4) Do Resnik’s problem 7 on page 55

5) Do Resnik’s problem 8 (a-e) on page 55

6) Do Resnik’s problem 2 (a-e) on page 59

7) Problem due to Mike Titelbaum: Pink gumballs always make my sister sick. (They remind her of Pepto Bismol.) Blue gumballs make her sick half of the time (they just look unnatural), while white gumballs make her sick only one-tenth of the time. Yesterday, my sister bought a single gumball from a machine that’s one-sixth pink gumballs, one-third blue, and one-half white. Use Bayes’ Theorem to determine how confident I should be that my sister’s gumball was pink conditional on the supposition that it made her sick?