

Math 310 - Dr. Miller - Activity #17: Intuitive Probability

1. A paper bag contains 18 items: 4 green marbles, 8 green cubes, 2 blue marbles, and 4 yellow cubes. Suppose 1 object is taken from the bag. Describe the probability of each event below, using these probability words:

*No chance*

*Nearly impossible*

*Unlikely*

*(roughly) Even chance*

*Likely*

*Almost certain*

*Guaranteed*

**Do NOT calculate any probabilities as numbers, but DO list favorable vs. unfavorable COUNTS.**

- (a) You get a blue marble.
- (b) You get a marble.
- (c) You get a green cube.
- (d) You get a green object.
- (e) You get an object that's not yellow.
- (f) You get a red cube.
- (g) You get an object that's green or yellow.
2. Thinking about the paper bag and its contents above, answer each question below. If not possible, explain. Answers can vary!!!
- (a) How many blue cubes could be added to the bag to have a roughly even chance of getting an object that's blue?
- (b) How many yellow cubes could be removed from the bag to make it almost certain that you get a green object?
- (c) How many green objects could be added to the bag to make it impossible to get a blue object?