

MATH 1000 IN-CLASS ACTIVITY 6

WEDNESDAY, JANUARY 31

Instructor: Alex Rice

Name:

These discussion topics were inspired by the Chapter 5 of *How Not to Be Wrong* by Jordan Ellenberg, titled “More Pie Than Plate”.

Four friends, Alice, Bob, Eve, and James, agree to compete in a weight loss contest, agreeing on ground rules to avoid health risk. The person who has lost the most total weight at the end of the month wins the contest.

After the final weigh-in, Eve declares: “I lost twice as high of a percentage as anyone else did!”

Alice declares: “I lost ten times as much weight as the rest of you COMBINED!!”

James declares: “Good for you guys. I win.”

Determine start and end weights for the four friends so that ALL THREE declarations are correct.

Why was Alice able to make such a misleading statement? Can you think of a scenario that is actually more in her favor that would force her to be more honest?

Do you think the winner was decided the right way? Based on the start and end weights you picked on the first page, who do you think should have won the contest?