

Math 11 — Probability and Statistics

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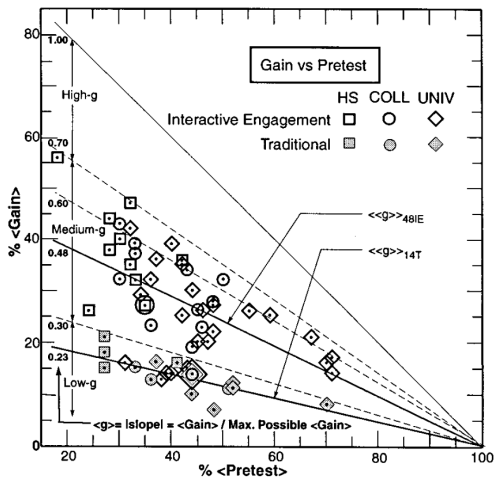
Common Ground

Turn to someone sitting near you who you don't already know. Take about 5 minutes to find at least *two* things that you have in common with your partner.

(Try to go beyond “We’re both taking Math 11 this quarter,” but it doesn’t have to anything deeply personal.)

About Me

Pedagogy Data



Hake, [doi:10.1119/1.18809](https://doi.org/10.1119/1.18809)

Class Structure

Please take 5 minutes to browse the course website and chat with your neighbors about anything you notice:

https://sagrawalx.github.io/teaching/sp23_math11/

(You can also find this link on Canvas.)

Statistics

One possible definition

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Probability is the mathematical backbone of statistics.

1. You have a coin and you want to know if it is biased. Here are two situations:

- (I) You flip the coin 10 times and find 6 heads and 4 tails.
- (II) You flip the coin 10 million times, and find 6 million heads and 4 million tails.

In which of these two situations can you be more certain that the coin is biased?

- (A) Situation (I)
- (B) Situation (II)
- (C) Equal certainty in both situations because we got 60% heads and 40% tails both times.