

MATH 1000 READING CHECK 7

MONDAY, FEBRUARY 5

Instructor: Alex Rice

Name:

These questions concern Chapter 6 of *How Not to Be Wrong* by Jordan Ellenberg, titled “The Baltimore Stockbroker and the Bible Code”.

- (1) What kind of patterns in the Torah did researchers at Hebrew University investigate in the 1990s?
 - a) messages spelled out with the first letters of consecutive words, called “first letter sequences”
 - b) messages formed with the first words of consecutive paragraphs, called “first word sequences”
 - c) messages spelled with progressions of letters equally spaced apart, called “equidistant letter sequences”
- (2) More specifically, the researchers referenced in Question 1 searched for patterns in the Torah related to what?
 - a) birth and death dates of famous rabbis
 - b) natural disasters
 - c) assassinations of world leaders
- (3) What was the reaction to the 1994 *Statistical Science* paper on the Torah patterns from the mathematical and orthodox Jewish communities?

- a) Almost everyone supported the findings as meaningful.
 - b) Almost everyone thought the findings were meaningless, either due to an intentional hoax or random chance.
 - c) There were mixed reactions in both communities.
- (4) If the Baltimore stockbroker's scheme starts with him mailing a stock tip to 10240 recipients, as described in the example, what are the possible results after 10 weeks?
- a) At least 10 people will receive 10 consecutive correct stock tips, and more if the stockbroker is lucky.
 - b) At least person will receive 10 consecutive stock tips, and as may as 10 people will if the stockbroker is lucky.
 - c) Exactly 10 people will receive 10 consecutive stock tips, no matter what the stock market does.
- (5) What point was Jordan stressing when he quoted Aristotle as saying "what is improbable is probable"?
- a) Improbable events happen a lot, if they are given enough chances to happen.
 - b) Nobody really understands probability, not even mathematicians.
 - c) Mathematics in ancient Greece was far from rigorous.
- (6) Ultimately, what conclusion does Jordan suggest as a good one to arrive at from the Torah study?
- a) Clearly the whole thing is a complete and intentional hoax.
 - b) Clearly the Torah predicted births and deaths of modern religious leaders.
 - c) If this study passes the barriers of our standard statistical tests, then we ought to be a little worried about our standard statistical tests.