

Practice for Quiz 6

(The Quiz will be on Wednesday, May 14

Math 125 *Kovitz* Spring 2025

A gambler is accused of using a loaded die, but he pleads innocent. A record has been kept of the last 210 throws. There is disagreement about how to interpret the data and a statistician is called in.

The observed frequencies for the six numbers on the die are summarized in this table.

<i>Value</i>	<i>Observed frequency</i>
1	22
2	39
3	42
4	39
5	40
6	28

A χ^2 -test of the null hypothesis that the die is fair was made. State P and the conclusion.

The answer is on the following page.

Answer:

P is equal to 10%.

P is greater than 5%, so accept the null hypothesis.

Decision: the die is fair.