

# Practice for Quiz 10

(The Quiz will be on Tuesday, December 12)

Math 125 *Kovitz* Fall 2023

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  $\chi^2$ -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.