

Math 13 Final Exam, Moodle Component

1. Out of 800 families with 6 children each, how many would you expect to have at least 2 girls?

2. A random sample of residents of Greenville was surveyed and the average number of hours per week that they walk was recorded:

7	6	4	8	2
8	9	12	1	2
6	7	8	10	11
9	5	5	3	5
8	11	12	6	2
6	7	8	10	11

Use this data to find a 95% confidence interval for the mean number of hours of walking per resident per week for the entire population of Greenville.

3. John suspects that a pair of dice is loaded (unfair). To test his hypothesis he rolls the dice 72 times. A total of seven comes up fifteen times. Set $\alpha=0.05$, state the null and alternate hypotheses, perform the calculations needed to arrive at a conclusion about the fairness of the dice and state your conclusion.