

Random sampling word problems

name _____

class _____

Solve the following word problems.

1 A small town has 4921 households. The local government is debating on whether or not a new school is needed. In a random sample, 153 out of 300 households have at least one child under the age of 5 years.

A. Approximately how many households in the entire town have at least one child under 5 yrs old?

B. Should the local government build another school? Why or Why not?

2 In a community, the committee wants to check all the households have the sufficient resources. In a random sample, 24 out of 60 households told it is having enough resources and happy, the others say it is not. The community has total of 1200 households.

A. About how many households in the community feel it is not having enough resources?

B. Do you think this is a valid sample and can it be used to make proper inferences? Why or Why not?

3 The Principal of summer camp would like to know the interests of students from 6 different schools having 5500 students total. Since there are too many students to survey they decided to do a random sample at each school. The results are shown below:

School	Foot ball	Tennis	Basket ball	Hockey	Soccer	Base ball	Total
1	24	16	20	8	4	10	82
2	20	28	10	4	10	12	84
3	25	20	16	10	14	11	96
4	16	18	14	12	12	8	80
5	18	26	8	7	10	9	78
6	9	18	15	12	12	14	80
Total							500

A. Based on the results, approximately what percent of the students like tennis?

B. About how many students in the total students like hockey and soccer combined?

C. If 730 students interested in Tennis, about how many students would show up their interest for Base ball?