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A random sample of the 1,200 students at Moorsville Middle School was asked which type of movie they prefer. The results are compiled in the table below:

Action	Comedy	Historical	Horror	Mystery	Science Fiction
15	12	3	10	4	6

1. Use the data to estimate the total number of students at Moorsville Middle school who prefer horror movies.

2. Suppose another random sample of students were drawn. Would you expect the results to be the same? Explain why or why not.

Name	Date

A constitutional amendment is on the ballot in Florida, and it needs **at least 60%** of the vote to pass. The editor of a local newspaper wants to publish a prediction of whether or not the amendment will pass. She hires ten pollsters to each ask 100 randomly selected voters if they will vote yes.

Poll number	Yes votes
1	51
2	68
3	58
4	43
5	65

Poll number	Yes votes
6	56
7	45
8	59
9	71
10	63

1. Should the newspaper's prediction be that the amendment *will pass* or that it *will not pass*? Explain your reasoning.

2. How far off is this prediction likely to be? Explain your reasoning.

Name		Date
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Mr. Mann, principal at Franklin High School, wondered if the students at his school would prefer longer school days for four days a week or shorter school days for five days a week. The total number of hours spent in school would be the same in either scenario.

Out of the 2,600 students enrolled in Franklin High School, Mr. Mann randomly interviewed 50 students from three different grade levels. The results are compiled in the chart below:

Groups	Longer days, 4 days a week	Shorter days, 5 days a week
10 <sup>th</sup> grade	32	18
11 <sup>th</sup> grade	26	24
12 <sup>th</sup> grade	34	16

1. Estimate the number of students out of the whole school who prefer longer days, four days a week.

2. What might be done to increase the confidence in the estimate?