



Solve each problem.

- 1) In a library there was a donation box for books. A librarian wanted to estimate how many fiction and how many non-fiction books were in the box so she pulled out a sample. The results are shown below:

| Sample # | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------------|----|----|----|----|----|----|----|
| Fiction | 22 | 21 | 20 | 21 | 23 | 20 | 22 |
| Non-Fiction | 30 | 31 | 30 | 29 | 28 | 30 | 28 |

Based on the information presented can you infer anything about the types of books donated?

- 2) During a class election a teacher wanted to predict who would win. To do this she took a sample of students from each class and asked who they would vote for. The results are shown below:

| S # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------|----|----|----|----|----|----|----|----|
| Candidate A | 59 | 61 | 61 | 62 | 59 | 62 | 61 | 59 |
| Candidate B | 51 | 54 | 52 | 52 | 51 | 51 | 52 | 50 |

Based on the information presented can you infer anything about who will win the election?

- 3) In a lake there are 3 types of fish: minnows, goldfish and sunfish. A fisherman wanted to estimate how many of each type there were. He scooped up several nets full and recorded his results (shown below).

| S # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------|---|---|---|---|---|---|---|---|
| minnows | 2 | 1 | 4 | 5 | 5 | 4 | 3 | 1 |
| goldfish | 2 | 5 | 5 | 5 | 5 | 3 | 3 | 5 |
| sunfish | 3 | 3 | 1 | 3 | 4 | 3 | 1 | 3 |

Based on the information presented can you infer anything about the number of different types of fish in the lake?



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- 1) In a library there was a donation box for books. A librarian wanted to estimate how many fiction and how many non-fiction books were in the box so she pulled out a sample. The results are shown below:

| Sample # | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------|----|----|----|----|----|----|----|
| Fiction | 22 | 21 | 20 | 21 | 23 | 20 | 22 |
| Non-Fiction | 30 | 31 | 30 | 29 | 28 | 30 | 28 |

Based on the information presented can you infer anything about the types of books donated?

Based on the information presented there will be 27% more Non-Fiction books donated.

- 2) During a class election a teacher wanted to predict who would win. To do this she took a sample of students from each class and asked who they would vote for. The results are shown below:

| S # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------|----|----|----|----|----|----|----|----|
| Candidate A | 59 | 61 | 61 | 62 | 59 | 62 | 61 | 59 |
| Candidate B | 51 | 54 | 52 | 52 | 51 | 51 | 52 | 50 |

Based on the information presented can you infer anything about who will win the election?

Based on the information presented Candidate A will have 14% more votes.

- 3) In a lake there are 3 types of fish: minnows, goldfish and sunfish. A fisherman wanted to estimate how many of each type there were. He scooped up several nets full and recorded his results (shown below).

| S # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|---|---|---|---|---|---|---|---|
| minnows | 2 | 1 | 4 | 5 | 5 | 4 | 3 | 1 |
| goldfish | 2 | 5 | 5 | 5 | 5 | 3 | 3 | 5 |
| sunfish | 3 | 3 | 1 | 3 | 4 | 3 | 1 | 3 |

Based on the information presented can you infer anything about the number of different types of fish in the lake?

Based on the information presented and the small samples gathered it is impossible to make any meaningful assumptions.