

**Solve each problem.**

- 1) A store manager was trying to figure out how many people did their shopping online compared to doing it in stores. To do this she polled several houses in the nearby neighborhoods. The results are shown below:

| Sample # | 1 | 2 | 3 | 4 | 5 | 6 |
|----------|----|----|----|----|----|----|
| Online | 51 | 51 | 48 | 50 | 52 | 49 |
| In-Store | 42 | 40 | 40 | 42 | 41 | 42 |

Based on the information presented can you infer anything about the number of people who did their shopping online vs. in-store?

- 2) 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:

| S # | 1 | 2 |
|-------------|---|---|
| Fiction | 5 | 3 |
| Non-Fiction | 5 | 6 |

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

- 3) A carpenter has accumulated a large collection of nails, screws and bolts, which he had randomly thrown together into a bucket. Later he wanted to estimate how many of each he had. To do this he grabbed a handful from the bucket. His results are shown below.

| S # | 1 | 2 | 3 | 4 | 5 |
|--------|----|----|----|----|----|
| nails | 39 | 40 | 39 | 41 | 38 |
| screws | 41 | 38 | 41 | 41 | 39 |
| bolts | 38 | 42 | 42 | 41 | 39 |

Based on the information presented can you infer anything about the relationship between the number of nails, screws and bolts in the bucket?



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Based on the information presented can you infer anything about the number of people who did their shopping online vs. in-store?

Based on the information presented there will be 17% more people shopped Online.

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

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

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| nails | 39 | 40 | 39 | 41 | 38 |
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Based on the information presented can you infer anything about the relationship between the number of nails, screws and bolts in the bucket?

Because of the very small discrepancy in the quantities it is unlikely any deduction can be made about the number of nails, screws or bolts in the bucket.