## Solve each problem.

1) 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).

| Sample \# | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| minnows | 6 | 5 | 4 | 5 | 6 | 6 | 4 | 5 |
| goldfish | 5 | 3 | 3 | 5 | 4 | 6 | 6 | 2 |
| sunfish | 5 | 6 | 6 | 2 | 5 | 2 | 3 | 2 |

Based on the information presented can you infer anything about the number of different types of fish in the lake?
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$\qquad$
2) A pizzeria owner was trying to determine which types of meat he should stock the most of for his new store. To do this he asked several pizza eaters what their favorite toppings were. His results are shown below:

| S \# | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pepperoni | 29 | 31 | 32 | 29 | 31 | 30 | 31 |
| Sausage | 30 | 28 | 30 | 32 | 30 | 28 | 28 |
| Ham | 28 | 30 | 28 | 28 | 32 | 32 | 29 |

Based on the information presented what can you infer about which type of meat he should stock?
$\qquad$
$\qquad$
$\qquad$
3) 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:

| $\mathbf{S} \#$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiction | 21 | 22 | 19 | 19 | 21 | 19 | 18 | 20 |
| Non-Fiction | 21 | 19 | 21 | 22 | 21 | 22 | 20 | 18 |

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

## Solve each problem.

1) 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).

| Sample \# | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| minnows | 6 | 5 | 4 | 5 | 6 | 6 | 4 | 5 |
| goldfish | 5 | 3 | 3 | 5 | 4 | 6 | 6 | 2 |
| sunfish | 5 | 6 | 6 | 2 | 5 | 2 | 3 | 2 |

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.
2) A pizzeria owner was trying to determine which types of meat he should stock the most of for his new store. To do this he asked several pizza eaters what their favorite toppings were. His results are shown below:

| S \# | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pepperoni | 29 | 31 | 32 | 29 | 31 | 30 | 31 |
| Sausage | 30 | 28 | 30 | 32 | 30 | 28 | 28 |
| Ham | 28 | 30 | 28 | 28 | 32 | 32 | 29 |

Based on the information presented what can you infer about which type of meat he should stock?
Because of the very small discrepancy in the quantities it is unlikely any deduction can be made about which type of meat he should stock the most of.
3) 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:

| $\mathbf{S} \#$ | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiction | 21 | 22 | 19 | 19 | 21 | 19 | 18 | 20 |
| Non-Fiction | 21 | 19 | 21 | 22 | 21 | 22 | 20 | 18 |

Based on the information presented can you infer anything about the types of books donated?
Because of the very small discrepancy in the quantities it is unlikely any deduction can be made about the types of books donated.

