

## Solve each problem.

1) An animal control employee wanted to estimate how many people owned cats and how many owned dogs. To do this he polled the first few houses in several neighborhoods. His findings are shown below:

Sample #	1	2	3	4	5
Dog	48	52	50	48	52
Cat	52	51	52	49	50

Based on the information presented what can you infer about which type of pets there are?

2) 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	30	31	29	31	28	32	28	32
goldfish	21	24	21	21	24	20	22	21
sunfish	14	10	13	11	12	12	12	15

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

3) An ad agency was trying to determine if customers liked blue, green or red packaging better. To do this they took a sample of customers and polled them. The results are shown below:

S#	1	2
Red	0	4
Green	3	4
Blue	0	4

Based on the information presented can you infer anything about which color is liked the best?

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Name: Answer Key

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Cat	52	51	52	49	50

Based on the information presented what can you infer about which type of pets there are?

Because of the very small discrepancy in the quantities it is unlikely any deduction can be made about how many cats or dogs are owned.

2) 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).

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goldfish	21	24	21	21	24	20	22	21
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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 there will be more minnows in the lake than goldfish or sunfish.

3) An ad agency was trying to determine if customers liked blue, green or red packaging better. To do this they took a sample of customers and polled them. The results are shown below:

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Based on the information presented can you infer anything about which color is liked the best?

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