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**Scalable Data Infrastructures**  
**Problem Solving**

**A Cat, a Parrot, and a Bag of Seed**

The problem is the man has 3 items that must be transmitted over to the other. The man must first take the bird across, go back and then pick up the cat. Upon returning, he brings the bird back, picks up the seed, and leaves the bird. He then drops the seed and leaves it with the cat. He then goes back and picks up the bird.

Performing the tasks in this order ensures that all items can be transported and not be consumed by the other.

My initial thoughts were based on leaving each item as I transported it. No matter what I transported, it would have been consumed. The only way to make it happen is to take something back to the island after initially leaving it on the other side.

**Socks in the Dark:**

- a) At least one matching pair, the number is 4
- b) Matching pair of each color, the number is 11

**Predicting Fingers:**

1-10 Index Finger

1-100 Index Finger

1-1000 Index Fingers

Test case: I counted, using the technique recommended. Because the numbers were 10, 100 and 1000, logically, those numbers would always end on the index finger. Whether one counts by 1s, 10s or 100s, the index will always be the index finger.