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5 June 2014

Web Programing Fundamentals

**Problem Solving**

**1). A Cat, A Parrot, and a Bag of Seed.**

A man needs to figure out how to transport a parrot, a cat and a bag of seed across a river, while having no room but himself and one other item on the boat. He can’t leave any of the three items together or something could get eaten.

You need to create space, and space can be created with the man allowing more room by sitting. He creates a second sitting area for something in his lap or on his head. Need to make space while keeping certain items separate from each other.

The man sits on the seed, while the cat sits on the boat and the parrot on the man’s head.

I have created a simple picture.

**2). Socks in the Dark.**

There are 20 socks in a drawer: 5 pairs of black socks, 3 pairs of brown and 2 pairs of white. You select the socks in the dark and can check them only after a selection has been made. What is the smallest number of socks you need to select to guarantee getting the following:

1. At least 1 matching pair.
2. At least 1 matching pair of each color.

**3). Predicting Fingers.**

A little girl counts using the fingers of her left hand as follows: She starts by calling her thumb 1, the first finger 2, middle finger 3, ring finger 4, and little finger 5. Then she reverses direction, calling the ring finger 6, middle 7, first finger 8 and thumb 9, after which she calls her first finger 10 and so on. If she continues to count in this manner, on which finger will she stop?

1. What if the girl counts from 1 to 10

I think the Ring finger.

1. What if the girl counts from 1 to 100
2. What if the girl counts from 1 to 1000