**Web Programming Fundamentals**

201410-01

**Full Sail University - Online**

08

**Fall**

Activity – Problem Solving – Oct. 3, 2014

Course #201410-01

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Problem Solving

1) Transport via boat across river 3 items. Only one item can be transported at a time. The items are: cat, parrot and seed. The cat and parrot cannot be alone together and the parrot and seed cannot be left alone together. Due to some imprecise parameters, at least one assumption must be made in order for the problem to be solvable: once transported across to the destination side of the river, the limitation of items left alone together can no longer apply. As the cat will not eat the seed, they are the only two items that can remain together on the departure side of the river. The parrot must be transported first and the remaining items can be transported in any order afterwards. Without the aforementioned assumption, the parrot gets to permanently stay in the boat while the cat and seed remain on the departure shore, the cat eats the parrot on the departure or destination shore or the parrot eats the seed on the departure or destination shore.

2) 20 socks: 2 white (1pair), 10 black (5 pair), and 6 brown (3 pair). All are initially unmatched. One can only confirm a matched pair after sorting or moving (removing) socks to match. For this problem, I will assume that once a match is confirmed, it is removed from the drawer or at least from the set of unmatched socks. As there are 3 different colored socks, the minimum number of selections needed to match any same colored pair is one and the minimum number of selections required to match at least one pair of each remaining colors would be two.

3) Which finger will the number fall on given the parameter? After quick test and observation, beginning with “10” numbers ending in “0” alternate between the first finger and the ring finger, the same is true for factors of 100. Following this pattern: 10 will be first finger, 100 will be ring finger and 1000 would be first finger.