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Web Programming Fundamentals

Problem Solving

Problem #1

1)- The need to get all items across the river with out them eating each other.

- You can take items back with you.

- Overall goal is get each item to the other side without losing anyone.

2)- There are 3 items

- Cat eats bird, bird eats seed

- You cannot leave the incorrect 2 together

- To keep each item safe/whole

3)- find the correct options for or different combinations to complete the goals

- Take the bird, then the seed, take the bird back, take the cat, go back and get the bird

4)- Yes it keep all items together and alive

- Yes it will work for instances of this situation

5)- Step one- Take the bird over

- Step two- Take the seed over

- Step three- Take the bird back over to the start point

- Step four- Take the cat over

- Step five- go back to get the bird from start point

Only completion no tests other that the one that worked.

Problem #2

1) Need to pick a pair out of 20 single socks and need to pick a pair of each color black, brown, and white out of that same 20 single socks all while in the dark

- 5 pairs black, 3 brown pairs, 2 white

- To get a single pair of socks and then to get a pair of each color

2) 10 black socks, 6 brown socks, 4 white socks- random pairs all jumbled up.

- To be able to blindly pick out pairs of socks in the dark

3) Know that 50% chance of getting a pair of black socks, 30% brown sock and 20% white socks.

- Grab a pair and verify that you have gotten the requested pair of socks

4) The account for probability to reach your goal is 1in 5 for a white sock 1 in 3 for a brown sock and 1 in 2 for a black sock

- The need to pull at least 4 socks to make sure that you have a pair of black socks

- No this will only work for the black socks, in order to pull one pair of each color you would need to pull at least 8-12 socks based on chance

5)- there is no established method for this scenario that I know of. Pull 4 socks for a pair of black socks.

Problem #3

1) To know which finger the child would land on using her counting method on her fingers.

- Learn the patterns used by the child to estimate which finger she would land on.

- To diagnose which finger she would land on when she got to 10, 100, and 1000

2) Not counting all the way to 1000 to figure out which figure she would land on using her method.

- To find out the correct finger for 10, finger 100, finger for 1000

3) Find the patter bounces during the 10 numbers and does not during the 100’s

4) Yes and yes

5) The child with land on her first finger for 10 and 1000 and land on her ring finger for 100. I actually counted several numbers or patterns to verify the pathing was correct.