**Problem Solving & Critical Thinking**

1. **Define the problem:**

“A man finds himself on a riverbank with a cat, a parrot and a bag of seed. He needs to transport all three to the other side of the river in his boat. However, the boat has room for only the man himself and one other item (either the cat, parrot or seed). In his absence, the cat could eat the parrot, and the parrot would eat the bag of seed. Show how he can get all the passengers to the other side, without leaving the wrong ones alone together.”

The man needs to bring three items across a river. Those items are a cat, a parrot and a seed. The cat will eat the bird, the bird will eat the seed and he can only carry one passenger at a time. How can he complete this task, without allowing them to eat each other?

1. **Break the problem apart:**

Point A = Beginning point

Point B = End point

Cat will eat bird and cannot be left alone with bird

Bird will eat seed and cannot be left alone with bird

1. **Identify potential solutions:**

Man could take parrot first, as cats can be left alone with the bag of seed.

Man could take cat, let bird fly and come back for the bag of seed.

Man could take cat, leave bird and seed, and then return for bird

Man could take the bag of seed, and then come back for cat

1. **Evaluate each potential solution:**

Man takes parrot across river, then returns for seed or cat.

If the man then leaves the parrot, will the parrot not wonder off?

Can the passengers be trusted alone once across?

If not, then this method would work, with either seed or cat next.

Man takes cat, lets bird fly and then returns for seed.

Can the parrot fly?

Will the cat eat the parrot when the man leaves to get the seed?

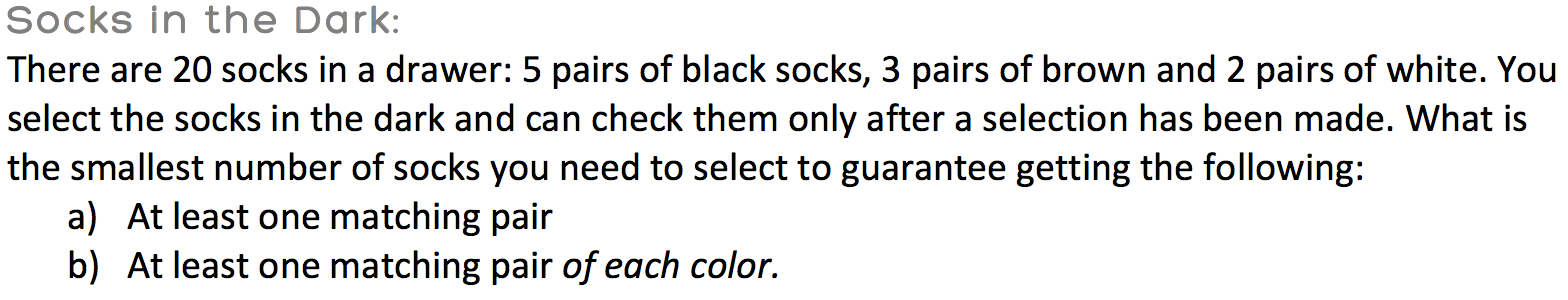
1. **Choose a solution and develop a plan to implement it.**

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1. **Define the problem:**
2. **Break the problem apart:**
3. **Identify potential solutions:**

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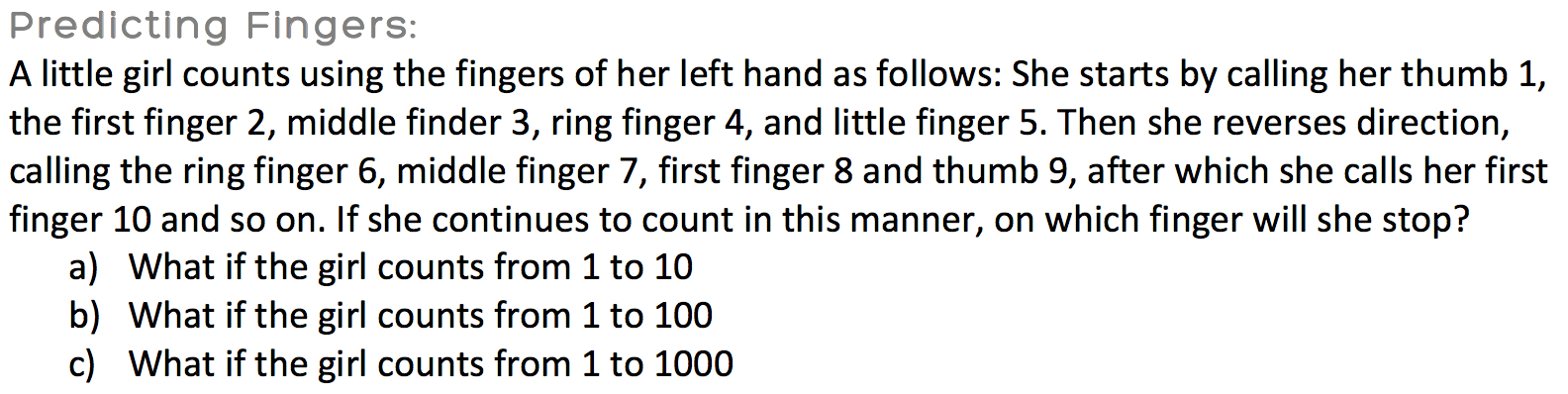
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2. **Choose a solution and develop a plan to implement it.**

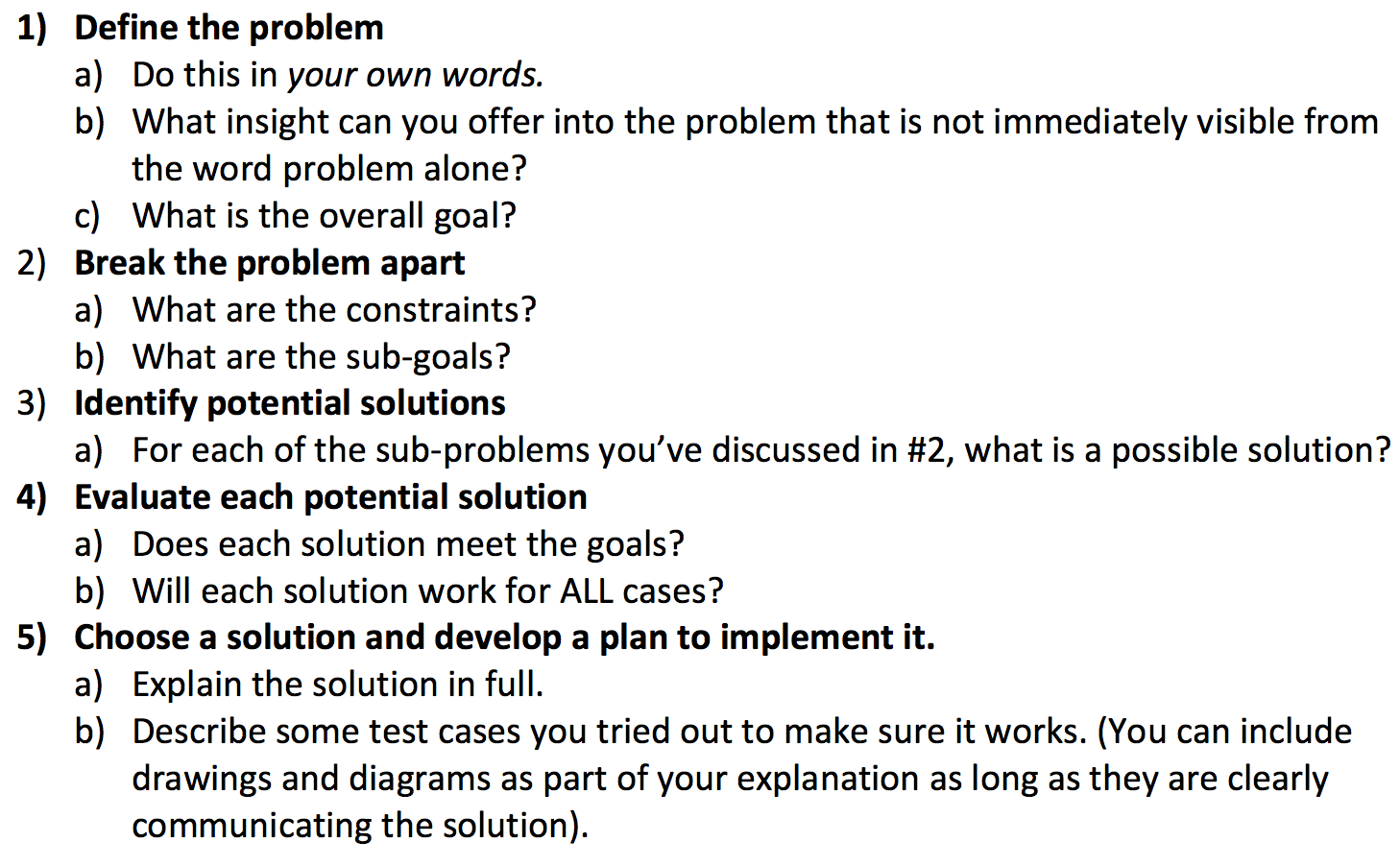
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1. **Define the problem:**
2. **Break the problem apart:**
3. **Identify potential solutions:**

This is base 5 counting, the thumb corresponding to 1 and 10, and the pinky finger being 5 and 6. Therefore, the

1. **Evaluate each potential solution:**
2. **Choose a solution and develop a plan to implement it.**

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