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SDI/Problem Solving

## A Cat, a Parrot, and a Bag of Seed:

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.

**1. Define the problem**:

**(A)** The mans boat is too small to transport all three safely.

(B) If left alone the cat would eat the bird or the bird would eat the seed.

(C) The Overall goal is to get all three on the other side safely

**2. Break the Problem apart:**

1. The Boat can only carry the man and 1 item.
2. One is to keep the cat from eating the bird. 2 . To keep the bird from eating the seed .

**3. Identify potential solutions**

1. Buying a bigger boat .

**4. Evaluate each potential solution**

**(A)** It’s a possibility that the solution will meet all goals

**(B)** If the new boat was big enough and it had compartments.

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

**(A)** The best solution to keep all elements safe would be to take one over the water at a time. I would take the bird first across the water and leave it . That would leave the cat and the seed together with no harm to each other. Then I will go get the cat to cross the river I realized that I couldn’t leave the cat and the bird together so I brought back the bird. When I got back to the seed I left the bird by itself and took the seed to where the cat was waiting so that left the bird to be picked up from the other side. All was on the other side safely.

**(B)** I did a mental test and it worked fine.