**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. **The Problem:**
   1. The man needs to transport himself and his belongings from one side of the river to the other. The man has a boat, but it’s only large enough for two passengers. Some of the passengers may eat the others, so he has to transport each passenger without leaving the wrong passengers alone with each other.
   2. There are pairs of passengers that can be left alone together.
   3. The main goal is to safely get the man and his passengers safely across the river without any of them eating any of the others.
2. **Break apart the problem:**
   1. The constraints are the two-person boat: The man + 1 passenger
   2. (1) Get the cat to the other side of the river. (2) Get the parrot to the other side of the river. (3) Get the Bag of seed to the other side of the river.
3. **Identify potential solutions:**
   1. (1) Put the cat in the boat and take him to the other side. (2) Put the parrot in the boat and take her to the other side. (3) Put the bag of seed in the boat and take it to the other side.
4. **Evaluate each potential solution:**
   1. Each solution does meet the goal, but only if you do them in a particular order.
   2. Yes, each solution is the same. Only the passenger is changing.
5. **Choose a solution:**
   1. First the man should take the Parrot to the other side of the river. Then go back alone. He then should take the Cat to the other side of the river. Then he should take the Parrot with him back to the other side of the river and leave her there. Then, he should pick up the seed and take it to the other side of the river, and travel back alone. Finally, he can take the Parrot to the other side of the river. All of the passengers have arrived safely at the other side.
   2. In order to figure out the solution, I had to do some doodles and sketches. I wish I would have taken a picture, but I didn’t think to do that. I used a whiteboard and some different colored markers to represent each passenger. I sketched out the possibilities…and after several casualties, I found one that worked.