**A Cat, a Parrot, and a Bag of Seed.**

**1) Define the problem**

*a) Do this in your own words.*

You need to get The Cat, The Bird, and The Seed across the river bank without leaving one in the others bad company.

*b) What insight can you offer into the problem that is not immediately visible from the word problem alone?*

Maybe after reading the problem ask yourself questions about the problem and think about the possibilities these questions hold.

*c) What is the overall goal?*

The overall goal is to get the cat, the bird, and the bag of seed across the river without leaving the bird with the cat and without leaving the bag of seed with the bird.

**2) Break the problem apart**

*a) What are the constraints?*

Limited boat space, the amount of times having to cross the river, Can’t leave the cat with the bird and can’t leave the bird with the seed.

*b) What are the sub-goals?*

Getting the Cat across, getting the Bird across, and getting the Seed across.

**3) Identify possible solutions**

*a) For each of the sub-problems you’ve discussed in #2, what is a possible solution?*

Take the cat across alone, take the bird across alone, and take the seed across alone. Take all three at one time.

**4) Evaluate each potential solution**

*a) Does each solution meet the goals?*

Each solution meets the goal that was stated.

*b) Will each solution work for all cases?*

It seems that in these cases it would work properly.

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

*a) Explain the solution in full.*

I would take a more practical approach, by putting the cat in the boat, putting the bird on my shoulder, and the seed in my lap.

*b) Describe some test cases you tried out to make sure it works. (You can include drawings and diagrams as part of your explanation as long as they are clearly communicating the solution*).