Problem Solving

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

1. The problem is that the man needs to get everyone to the other side of the river, he only has room for 1 extra (each trip across). He cannot leave the bird and cat together and he can’t leave the bird and seed together at the same time. I would tell the man to sit down and picture each possible scenario in your head. The goal is to get everyone to the other side, safely, in one piece.
2. The constraints are that the cat will eat the bird and the bird will eat the seed. Also, that the boat only has room for one extra passenger.
3. Some sub-goals are to figure out the first trip across. What will that leave on the other side. Then picture other scenarios, before taking any trips across the water. Also, to think outside of the box.
4. One solution is that the man takes the cat on the first trip, that doesn’t work though, because the bird will be left on the other side with the seed. Another solution is that the man takes the seed, but that doesn’t work, because the cat will be left to eat the bird. These possible solutions do not work for all cases.
5. The solution is:
6. Trip 1: take the bird to the other side (leaving the cat and the seed).
7. Trip 2: come back and take the seed (leaving the cat).
8. Trip 3: When he drops off the seed to the other side, he will need to take the bird back with him (leaving only the seed on the other side).
9. Trip 4: go to get the cat, leave the bird in place of the cat (the bird will be alone)
10. Trip 5: When he drops off the cat, he should go back and get the bird.

