

1. A farmer has to transport a fox, a goose, and some grain across a river. He has a boat which he can row back and forth from shore to shore. He can take himself and one other thing in the boat. However, unless he is present, the goose will eat the grain and the fox will eat the goose. How can he transport all three things across the river?
2. This time, the farmer has to transport a fox, a dog, a goose, and some grain across a river. He has a boat which can carry himself and either the fox, dog, goose, or grain. If the farmer isn't present, the fox cannot be left with either the dog or the goose, or both. If need be, the goose can be left with the grain provided the dog is present because the dog will guard the grain and won't eat the goose. Help the farmer cross the river.
3. Two soldiers have to cross a river. They have discovered a small boat in which is being rowed by two children. The boat can only carry two children or a single soldier. How did the soldiers get across the river and afterwards leave the two children with their boat?
4. There are three dogs and three cats that have to be transported across a river: a big dog, a medium dog and a small dog, a big cat, a medium cat, and a small cat. The boat can carry two animals, and all of the animals can row. The medium dog cannot be left alone with either of the other dogs, nor can the medium dog be transported with another dog, because if the two are by themselves they will fight. The big dog will not fight with the small dog. Also the medium cat cannot be left alone with either of the other cats, nor can the medium cat be transported with another cat for the same reason, and the big cat never fights with the small cat. To make matters worse, if ever there are more dogs than cats together on the shore, the dogs will fight with the cats. How can the animals get across the river without a fight breaking out?
5. Tom stole a mug worth \$3000. Dick stole a jug worth \$5000. Harry stole a rug worth \$8000. To escape, they had to cross a river in a boat which either held two people or one person and one item. No person was to be left alone with objects worth more than what he stole, but two people could act as checks for each other, and could be trusted with objects worth more than what they stole. How would they cross the river, given that all three could row?
6. A father took his sons out for a picnic and had to cross a river in a small boat. The boys were born one year apart. Two boys would fight each other if their ages differed by one year, provided that the father was not around to stop it. Given that only the father could row, how could this family cross the river peacefully, if there were three boys and the boat held two people; there were five boys and the boat held three people, and the father could stop fights on the boat; there were five boys and the boat held three people, but the father could not stop fights on the boat?
7. A farmer was trying to cross a river in a boat which held him and two items, to be chosen from two wolves, one dog, one goat and one bag of grain. When the farmer was not around, either wolf would eat the dog or the goat, the dog would eat the goat and the goat would eat the grain. How could the farmer transport all five items across the river to his home, where he would eat them himself?
8. A farmer, his son and daughter and their pets need to cross a river. The pets are a fierce dog, two hamsters, and two rabbits. There is a small two-seater boat that they can use. All three people can row the boat, but none of the animals can. Help everyone cross the road without any biting or teasing.
 - If the farmer is not around, the dog will bite everybody and everything.
 - If the son is not around, the daughter will tease the hamsters.
 - If the daughter is not around, the son will tease the rabbits.
 - The hamsters and the rabbits get along fine with each other.