

Instructor: I. Kotsireas

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### Problem Statement

3 Missionaries and 3 Cannibals are on one side of a river, along with a boat that can hold one or two passengers.

Find a way to transport everyone to the other side of the river, without ever leaving a group of Missionaries in one place outnumbered by the Cannibals in that place.

### Requirements

- [30 MARKS] give a precise formulation of the problem, following the relevant discussion on **problem formulation** seen in class
- [40 MARKS] draw a diagram of the **complete** state space
- [30 MARKS] implement an appropriate **search algorithm**, from the ones seen in class, and solve the problem optimally, using the programming language of your choice

### What to submit by the due date

See the course outline for the general submission and file naming convention requirements.

### Late submission policy

Late submissions will not be accepted.

Late submissions will be marked with 0.