Treasure Hunt

This activity is adapted from http://csunplugged.org/finite-state-automata/.

Imagine you are a pirate and you want to get to Treasure Island but you don't know how to get there. However, your navigator is aware that the general surrounding looks like this:



Your goal is to find a way to get to Treasure Island. Friendly pirate ships sail along a fixed set of routes between the islands in this part of the world, offering rides to travellers. Each island has two departing ships, **A** and **B**, which you can choose to travel on. You need to find the best route to Treasure Island.

At each island, there is a mayor that will tell you about the possible routes. When you get to an island, you may ask for either ship A or B (not both). The mayor at the island will tell you where your ship will take you to next. Use your map to keep track of where you are going and which ship you have travelled on.

When you are done building the map, have a seat and identify two or more routes that get from the island where you started to Treasure Island. Which route is the quickest? What would be a very slow route? Can you find a route that involves a loop?