# Marooned

You need: counters of different colours (optional)

A group of 6 adults and 2 children are cruising in a launch, but a sudden storm forces them to anchor 200 metres from an island. They decide to row ashore for the night. The launch's dinghy holds only 1 adult or 2 children. All the people on board the launch know how to row. One trip means rowing the dinghy to the shore or back to the launch.

1. a. How many trips do they need to make in the dinghy to get everyone ashore?
    b. What if there were 12 adults and 2 children?
    c. What if there were 20 adults and 2 children?

2. What happens to the number of trips if 1 of the adults stays behind on the launch?

3. What is the rule for any number of adults with 2 children?
    Explain why this rule works.

4. If the dinghy made 37 trips and you knew that there were 2 children, how many adults would have gone ashore?
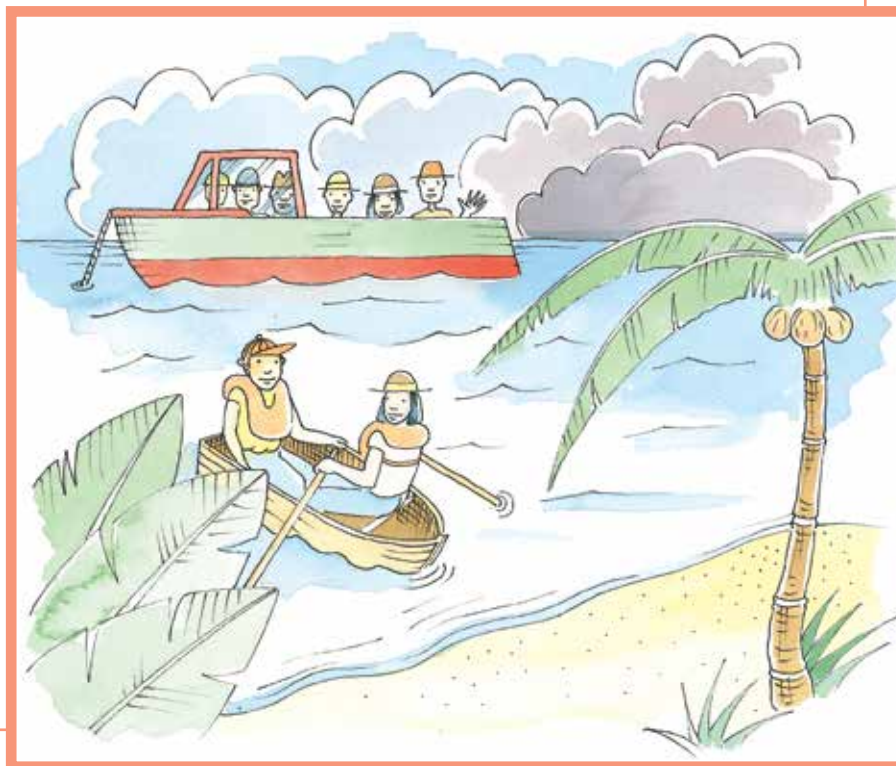
Investigate what happens with more children in the party.
Can you still find a pattern? Explain your pattern.
Can you find a rule that will work for any number of children?

Using patterns and rules