

Treasure to Ship

The purpose of this activity is to:

- Use equipment to help work out a problem.
- Use a repeating pattern to solve a problem.

What to do:

1. Get two objects to represent the pirates (eg lego people or toys) and four objects for the treasure chests (e.g. blocks or cans of food).
2. Read the problem with your child.
3. Select “equipment” that you have at home to help with the problem. For example:
 - lego people or toys for the pirates
 - blocks or cans of food for the treasure
 - a container for the ship
 - a folded tea towel or placement for the island
4. Ask your child to describe the problem in their own words to make sure that they understand what is required.
5. Using your objects to act out a trip to the ship with the treasure. Discuss the ways that you could keep track of the trips taken (draw, list).
6. Ask your child to continue the problem.
7. As they work ask questions that focus their thinking on the steps they are taking.

How many trips have you taken?

How did you work out who to put in the boat?

Can you see any patterns in what you are doing? Describe them.

How are you keeping a record of the trips?

Do you think that you can use a smaller number of trips?

8. Ask them to tell you about their solution.

Solution: There are 9 trips from island to ship.

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| 1. 2 pirates go to ship | 6. Returns to island |
| 2. 1 pirate returns for treasure | 7. Takes 3rd treasure chest to ship |
| 3. Pirate takes 1 treasure chest to ship | 8. Returns to island |
| 4. Returns to island | 9. Takes last treasure chest to ship |
| 5. Takes 2nd treasure chest to ship | |

Note: steps 1 and 2 can occur at any time that the small boat is on the land or steps 3 to 9 can be followed by ‘returns to land, 2 pirates go to ship’.

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Treasure to Ship

Problem:

There are **2 pirates** and **4 treasure chests** on an island.

The pirates have 1 small boat to take the treasure to their ship. The boat can take 2 pirates or 1 pirate and 1 chest of treasure.

How many trips do the pirates have to take to get all the treasure and both pirates onto the ship?

