

# Hack Your Treasure

What does it mean to be efficient?

*In these puzzles use a special set of instructions to guide our pirate ship to the treasure. Record the solutions to the puzzles below.*

## ***Puzzle 1***

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

*Ships cannot travel into spaces with Coral Reefs.*

*Fight Sea Monsters by using the harpoon \* before you move into that space.*

## ***Puzzle 2***

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

Was it more efficient to fight the sea monster or go around?

## ***Puzzle 3***

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

Was it more efficient to fight the sea monster or go around?

What is a real-world example where you might choose to go around an obstacle instead of removing it, even though it is more efficient to remove it?

*Collect Doubloons by using the \$ instruction after moving into that space.*

## ***Puzzle 4***

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	



**Puzzle 5**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	

Which puzzle (4 or 5) was more challenging to solve? Why?

What is the Traveling Salesman Problem?

**Reflection:**

1. Why is it important to understand efficiency?
2. What are some challenges computer programmers face?
3. What is another real-world example of the Traveling Salesman problem?
4. How might you use what you learned?

