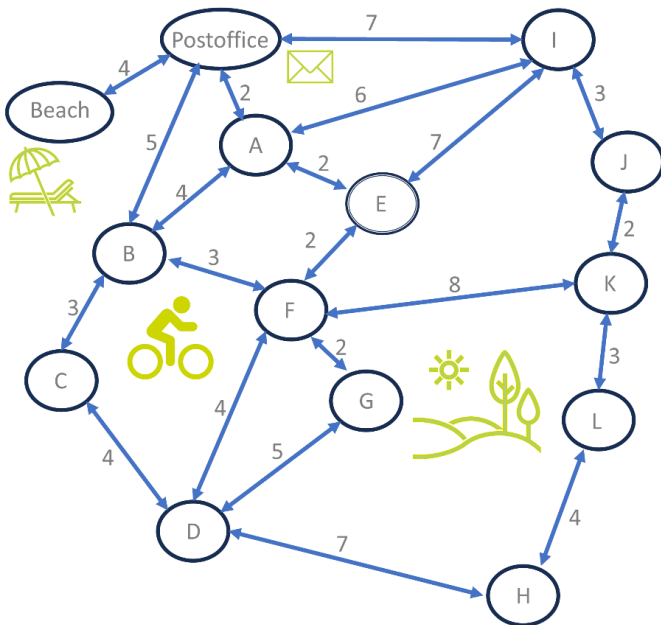# Quarterly Problem

- *Math Edition* -
Bicycle Delivery Problem

→ Eva works at Eco-delivery, an environmentally friendly courier that delivers post by bicycle within the city.

The sun was shining and Eva decided to head to the beach with her swimwear. Early as it was, Lena and Ullrika were already there, discussing Eva's summer job dilemma. She needs to deliver letters to twelve companies before noon but is unsure of the optimal route.

This problem is known as the "Travelling Salesman Problem" in mathematics, which tests computational efficiency. Additional constraints and variations can be applied to make it more challenging.

- Extra Task 1: The post office has determined that mail to company K should be delivered first. What is the quickest route from the beach to the post office, then to K, and then to all the companies?

- Extra Task 2: The mailbag only holds letters for 6 companies; then you have to return to the post office to refill it. (Company K does NOT need to be first in this case).

Brainstorm-Box
Can you help Eva and her friends, will she make it on time?

Which method is the most appropriate?
Focus on phrasing your approach in a clear and comprehensible way. Also state what foundation you have used for your solution.