

Spin to the Top Mathematics lesson 3

Learning aim: To recognise and interpret graphs and rates of change.



Creativity step 8 – I develop ideas by using mind mapping.



Problem solving step 4 – I explore problems by creating different possible solutions.

Scenario

A gym instructor runs five spin (cycling) classes per week with 6 members per class. The instructor is always keen to look for ways to better support clients during these classes. As well as asking clients for their direct feedback, she also collects data from the five spin classes, including:

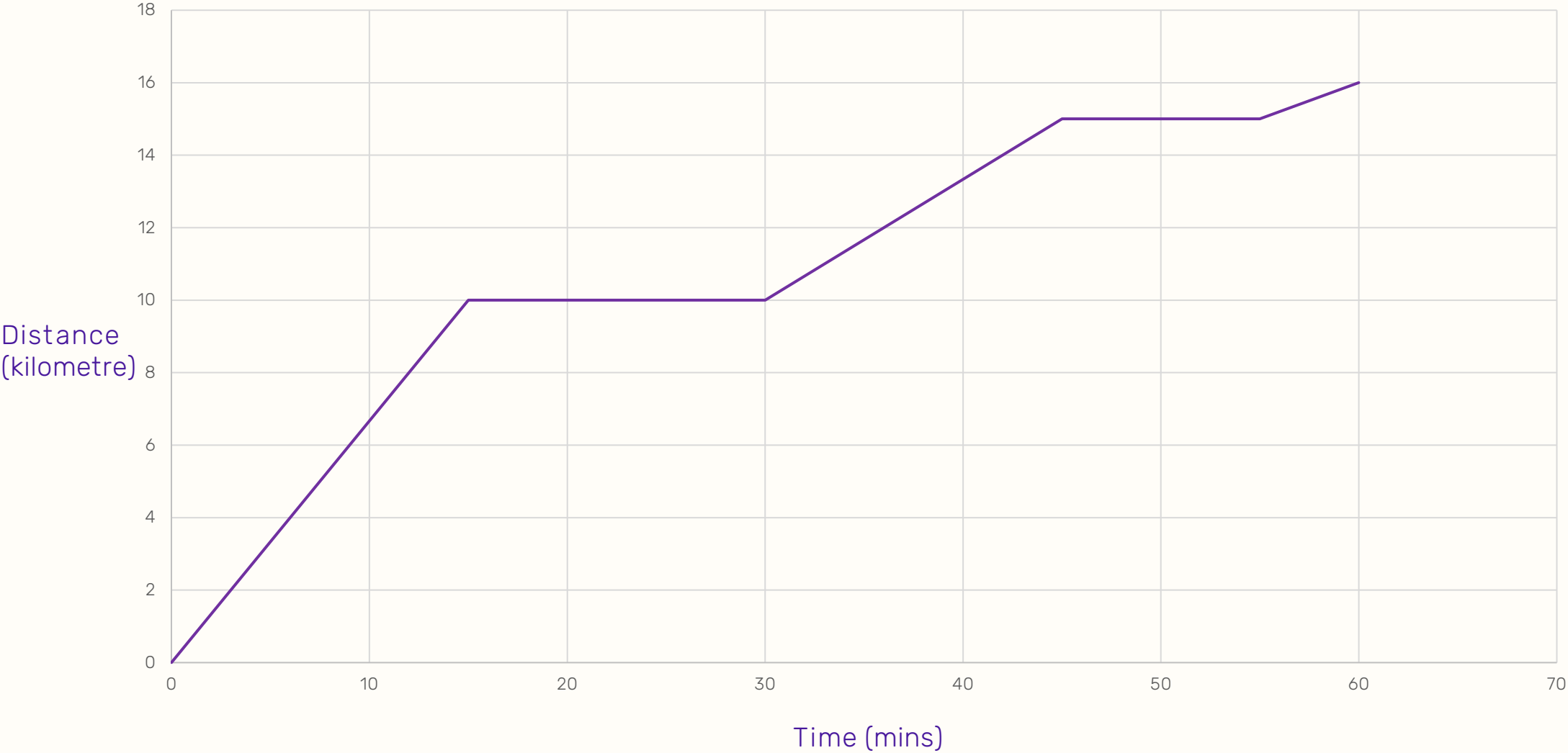


Scenario continued

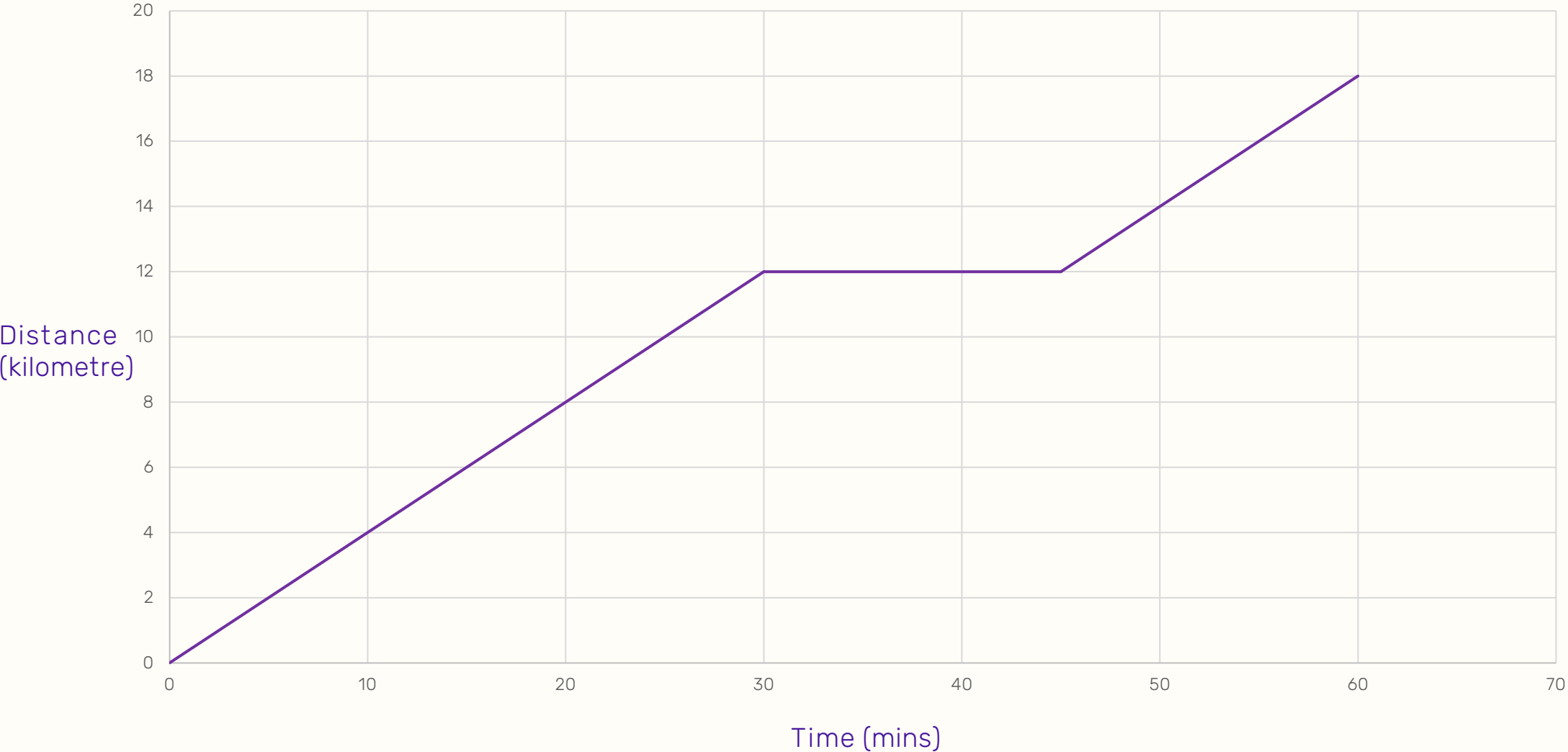
- Time spent at rest
- Total distance cycled
- Average speed on the bikes

She collects the average data from the classes and names them: Group A, Group B, Group C, Group D and Group E.

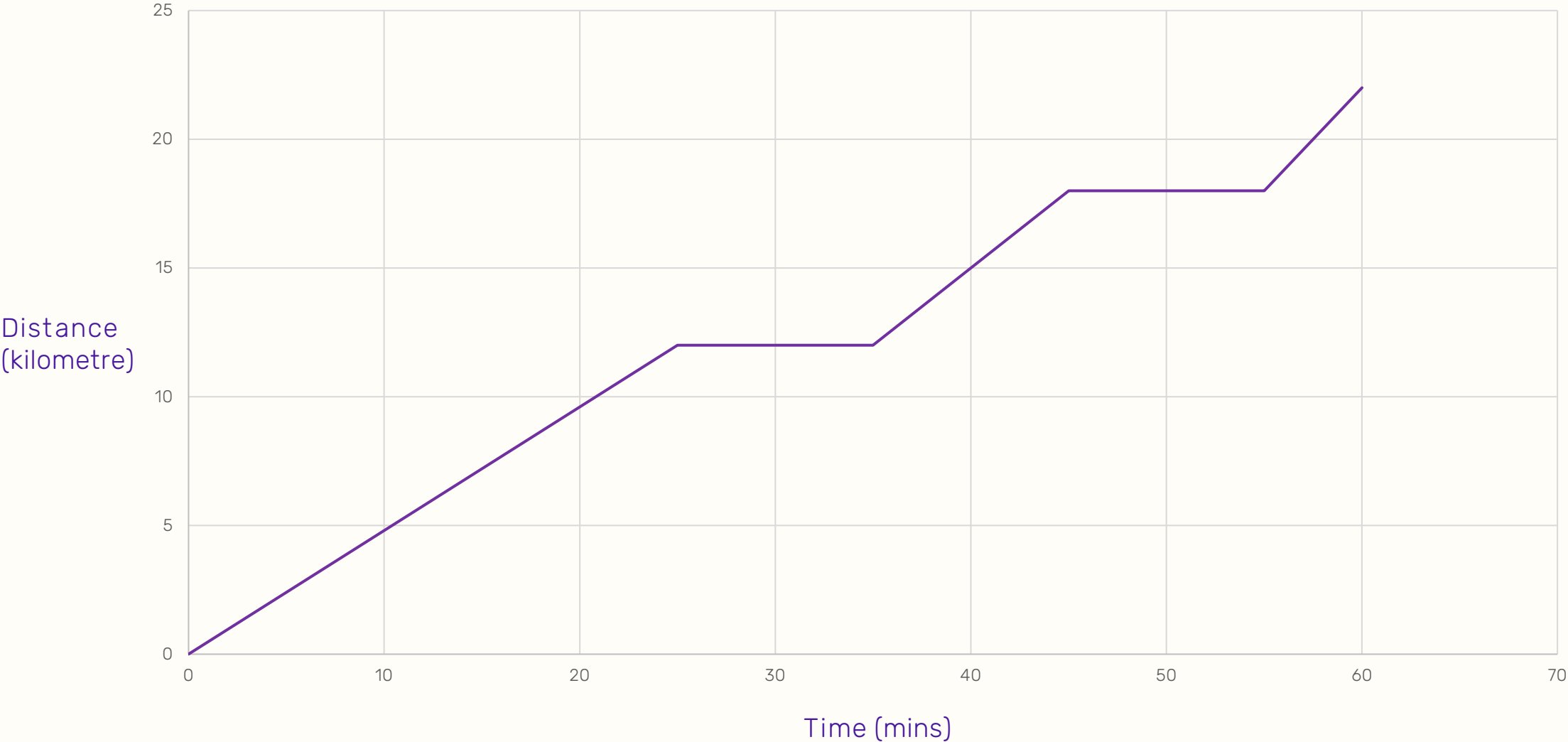
Group A



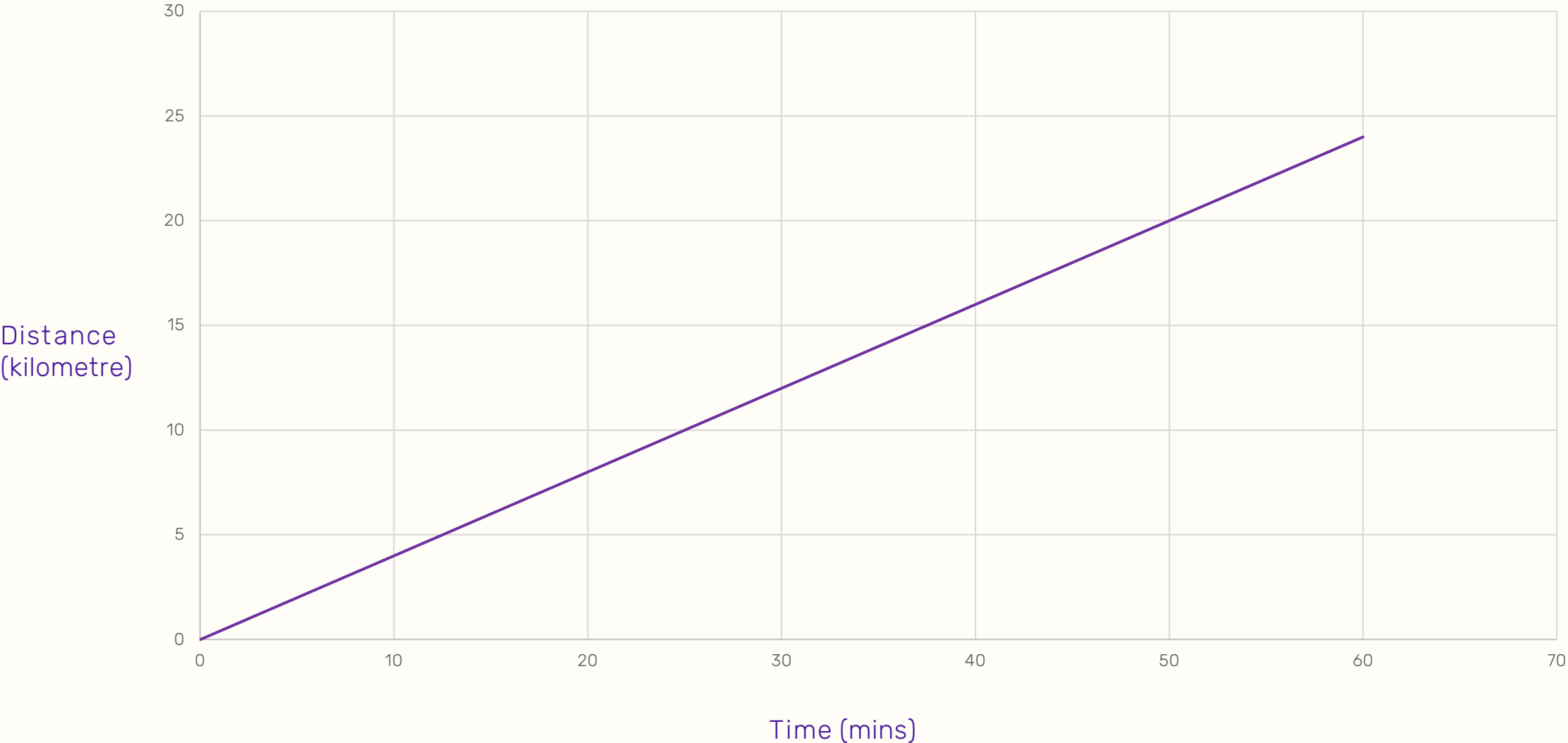
Group B



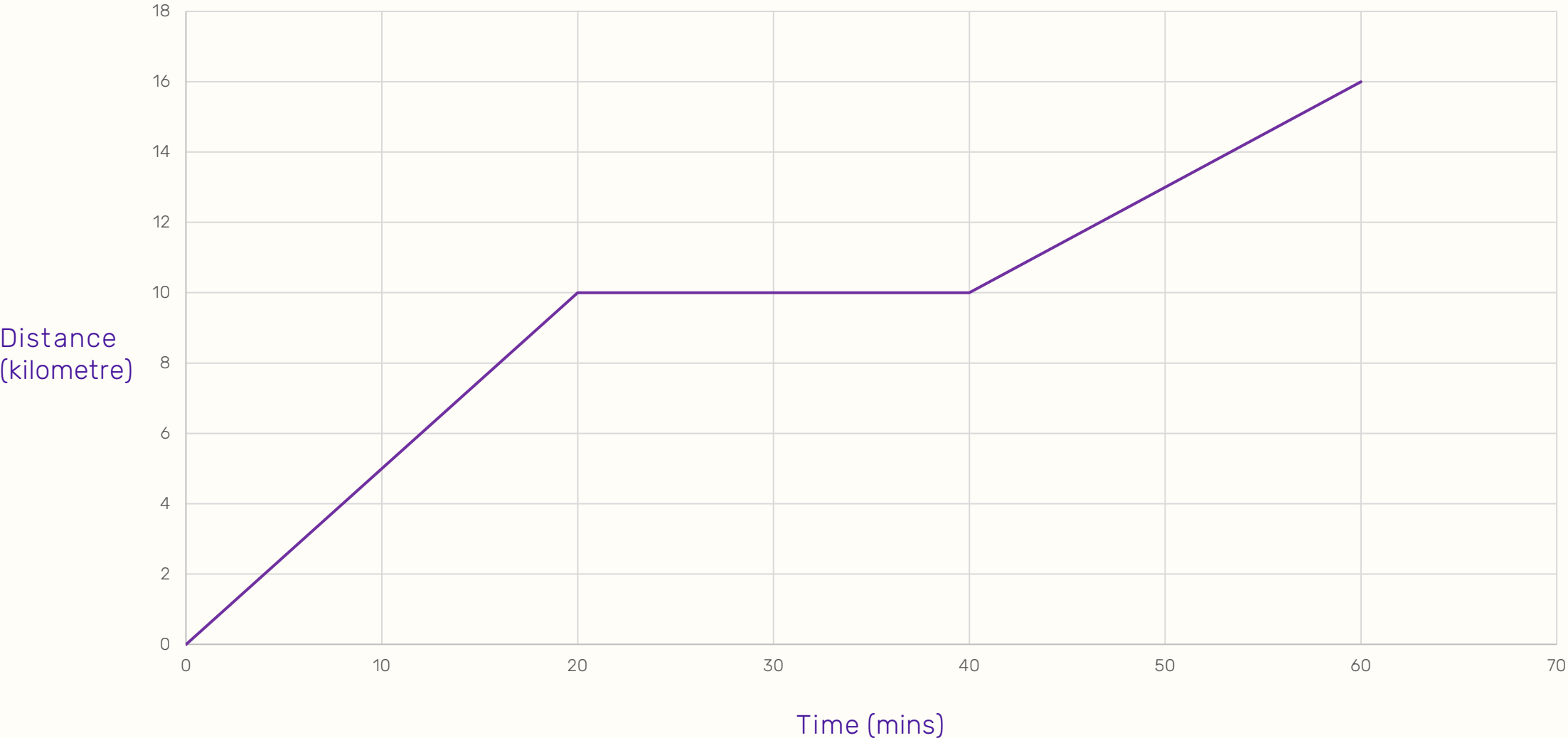
Group C



Group D



Group E



Recommended changes to the classes

1. Mindmap all the ways that the instructor could change the following:
 - Format (for example how long the session lasts for).
 - Instruction (for example, how the instructor demonstrates what will happen in class).
 - Environment (for example, add up-tempo music at the moments when clients tend to slow).
2. For each of the classes, write a summary of what you have learnt from the data and some personalised recommendations for each class. The recommendations for each group should be based on the data collected.

Reflection

1 – What's your best recommendation for the cycling class and why do you think it's the most effective advice? Share your answer in pairs.

2 – What are the benefits to exploring multiple solutions when you are solving or tackling a problem?

3 – What other areas in your life could you apply these problem-solving skills to?