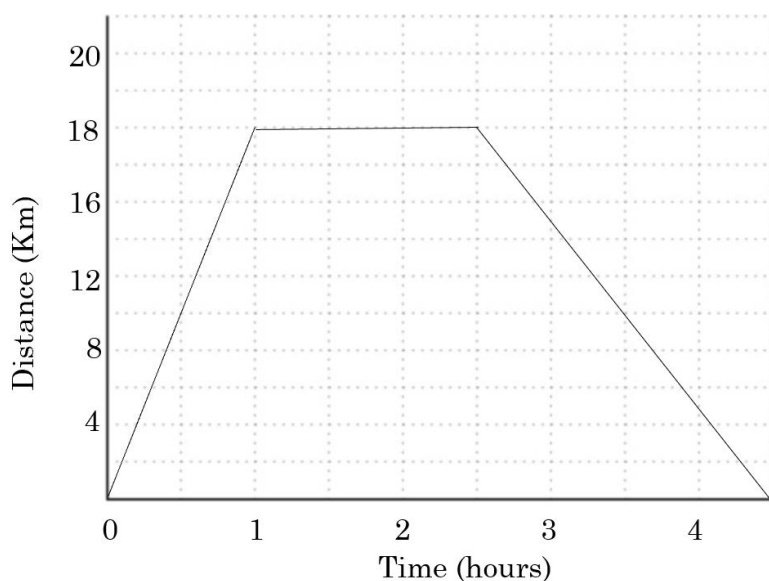# Real Life Graphs Exam Practice

Q1. Robert cycles from his house to the gym. He spends some time exercising at the gym and then cycles home.

a) How long does Robert spend at the gym in minutes?

[1]

b) Work out the speed Robert travels to the gym, stating the units.

[2]

c) Robert goes to the gym three times a week. His trainer estimates he burns 300 calories going to the gym, and 450 calories at the gym. Here is his calculation for the total amount of calories Robert spends each week:

$$3 \times (300 + 2 \times 450)$$

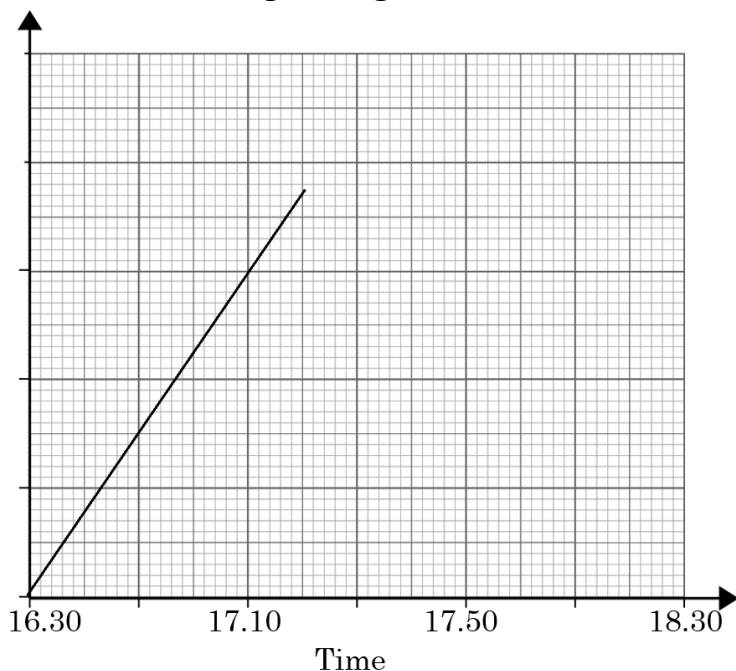With reference to the graph, explain why his estimation is unlikely to be correct.

[3]

Q2. Sarah goes out for a run. Her route is to the park, where she has a rest, and then she runs back home. Sarah runs at a constant speed. Identify all the mistakes in the travel graph below:
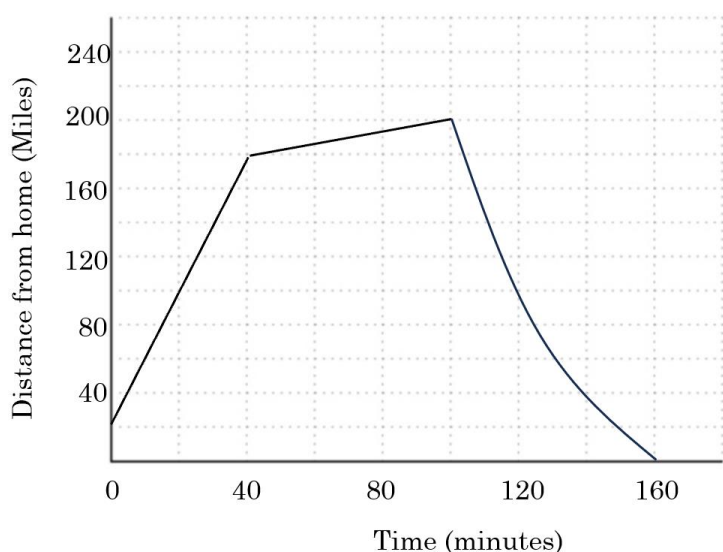
[3]

Q3. Jap sets off from college walking at 9 km/h. The graph shows how far he manages to get:

Thinking that he has forgot his hat, he stops for 10 minutes, then heads back towards college the way he came at a speed 50% faster than before. After 20 mins, he realises to his relief that he didn't have it with him that day. He then rests for 30 mins.

a) Complete the graph using the info, labelling the axes. [3]

b) Jap's house is 11 km away from college. Work out how far he has left to travel to arrive home. [2]

Q4. Rachel sets of from her house on her bicycle to her friend's house. She rides for 1 hour 20 minutes at constant speed of 18 km/hour. She spends 2 ¾ hours at her friend's house before setting off back home. After 40 minutes, her phone rings so she stops to answer it.

a) Draw her journey on the graph below. [3]
b) How far from home is Rachel when she takes her phone call? [1]