Brian had to drive from his house to Cork for a job interview.
He drove at an average speed of 80 km per hour for the first $\frac{1}{2}$ hour.
(a) (i) Find the distance, in km, driven by Brian in the first $\frac{1}{2}$ hour.

(ii) It then took him $1 \frac{1}{2}$ hours to drive the remaining 117 km to Cork. At what average speed, in km/h, did Brian drive the remaining 117 km ?

(iii) Using the total distance travelled and the total time taken, what was Brian's average speed for the journey from his house to Cork?

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(b) After the interview, Brian was offered a job as a car salesperson. He could choose between 2 different contracts: Contract A and Contract B. Each contract had a basic wage and a commission for each car sold. Table 1 shows the details of each contract.

|  | Table 1 |  |
| :---: | :---: | :---: |
|  | Contract A | Contract B |
| Basic wage per week (€) | 400 | 600 |
| Commission per car sold $(€)$ | 100 | 50 |

The graph on the grid below shows the total weekly wages for Contract A for up to 6 cars sold per week.

(i) Use the graph to find Brian's total weekly wage if he were to sell 3 cars in a particular week on Contract A.

(ii) Table 2 below shows the total wages for Contract B for up to 6 cars sold per week. Complete the table.

Table 2

| Table 2 |  |
| :---: | :---: |
| No. of cars sold per week | Weekly Wage (€) |
| 0 | 600 |
| 1 | 650 |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |


(iii) Use the values from Table 2 to plot the graph of the total weekly wages for Contract B on the grid on page 18.

(iv) Write down the point of intersection of the two graphs.

Explain what each number means in the context of the question.

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Explanation:

(v) Brian thinks he can sell an average of 5 cars per week. Which contract do you think he should choose? Give a reason for your answer.

Answer:
Reason:


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