Maths Week/ Wiki Pāngarau 2025

Survivor Series/Kia Mōrehurehu

Day 3 Set D

For students

What to do for students

1   You can work with one or two others. Teams can be different each day.

2   Do the tasks and write any working you did, along with your answers, in your maths book.

3   Your teacher will tell you how you can get the answers to the questions and/or have your work checked.

4   When you have finished each day, your teacher will give you a word or words from a proverb. You could ask your teacher to explain what a proverb is.

5   At the end of the week, put the words together in the right order and you will be able to find the complete proverb! Your teacher may ask you to explain what the proverb means.

6   Good luck.

DESTINATION DISCOVERY

Gill and George are planning a trip to the United Kingdom (UK, which consists of England, Wales, Scotland and Northern Ireland).

Task 1

The drive from their home to the airport took thirty-five minutes and they arrived at the airport at ten minutes past eight in the evening.

a) At what time did Gill and George leave home?

The first flight departed at 11:55 pm.

b) How long did they wait at the airport before departing?

They had two flights between New Zealand and England. The first flight took ten hours and fifty minutes. There was a four hour and forty-five minute stop over between the flights in Singapore. The second flight took thirteen hours and forty-five minutes.

c) How long did they spend in total actual flying?
d) Including the drive to the airport, the initial wait at the airport in New Zealand, both flights and the stop over how long did it take to get from their home to landing in the UK?

Task 2

Gill and George planned on spending four days and nights in London and budgeted as follows:

- $60 per person for an Oyster card to travel around London
- $1600 for bed and breakfast
- $800 for food
- $76 per person - The View from the Shard
- $68 per person – The London Eye
- $84 per person – Madame Tussauds
- $64 per person – Tower of London
- $55 per person – Arsenal stadium tour
- $32 per person – Royal Albert Hall tour

- $38 per person – St Paul's Cathedral
- $48 per person – Shakespeare's Globe Theatre Tour
- $25 per person – Tower Bridge

a) How much in total have they budgeted to spend in London?

After looking at some advertisements, they realise they could purchase The London Plus Pass which would give them access to all the tourist attraction they wanted to visit, plus lots more including the Oyster card for travel around London for just $375 each.

b) How much would they each save by purchasing The London Plus Pass?

Now that they have saved some money, they decide to spend a day visiting Harry Potter World. The return train journey from London Euston to Watford Junction costs $25 per person, the shuttle bus is complimentary, and standard entry is $120 per person. Alternatively, a transfer package, taking a double decker branded bus from central London costs $230 per person.

c) Calculate the two different total costs for two visitors.
d) For each of the two options, how much in total will they be over/under budget by visiting Harry Potter World?

After spending a few days in London, they took the overnight train from London Euston to Edinburgh, Scotland. The overnight train departs at 2345 hours and takes seven hours and forty-five minutes to make the journey.

e) What time the following morning did they arrive in Edinburgh?

Task 3

George and Gill budgeted $2400 each for their return flights to London, $170 each for their overnight train to Edinburgh, $100 each for their ferry journey from Liverpool to Belfast and $150 each for their one-way flight back to London.   In addition, they budgeted $2800 for car hire in the UK and $400 for car hire in Northern Ireland.

a) How much did they budget in total for the two travellers towards these travel expenses?

In addition to their budget for their London stay, they budgeted the following per night for the remainder of their travels:

- $350 for accommodation and breakfast
- $180 for other meals and snacks
- $170 for "other" expenses such as entry to tourist sites, travel on buses, trains etc. not individually itemised

In total they spent another 21 days and nights after leaving London.

b) How much did they budget per day for these expenses?
c) How much did they budget in total on these expenses for the 21 days?
d) How much did they budget in total for their entire trip based on the information supplied, including all flights, travel, accommodation, food and activities in both London and elsewhere with the UK?

They added a ten percent contingency to their budget in case some estimated costs change due to factors beyond their control. Increase your answer to the previous part by ten percent to find the actual budget.

e) How much was their actual budget?

They spent $26 176 during their trip.

f) Did they go over or under budget and by how much?

Extension options for further lessons:

Either work through the questions using a spreadsheet to complete the calculations, or

Research the exchange rate between Pounds Sterling and New Zealand dollars.

Research Dublin and plan how you might spend three days there.

Consider where you might stay, eat and visit and whether the budget would be adequate for you to stay for three days and nights.