

NAME:

Class:

“Harjot, Israel and Tuor’s Europe trip”

AS 1.1 Practice Assessment

91026 (v3) Apply numeric reasoning in solving problems

Credits: 4

Time allowed: 1 hour

Conditions:

Calculators are allowed.

This is a closed book assessment.

You should answer ALL questions.

Show ALL working for ALL questions.

YOU MUST HAND THIS ASSESSMENT INTO YOUR TEACHER AT THE END OF THE CLASS.

Achievement	Achievement with Merit	Achievement with Excellence
Apply numeric reasoning in solving problems.	Apply numeric reasoning, using relational thinking, in solving problems.	Apply numeric reasoning, using extended abstract thinking, in solving problems.

Task

Work out how much money Harjot, Israel and Tuor need to save for their trip to Europe in New Zealand Dollars, and how long it will take them to save for it.

In the solution of this problem you should:

- Show calculations, as appropriate, that you have used in the solution of the problem;
- Use mathematical statements;
- Explain what you are calculating at each stage of the solution.

The quality of your discussion and reasoning and how well you link this to the context will determine the overall grade.

Task Description

Harjot, Israel and Tuor are planning to travel to Europe for a holiday. They plan to be in Europe for 7 weeks, and during that time take a 2 week bus tour through Italy.

Harjot earns \$760 each week, Israel earns \$850 each week and Tuor earns \$875 each week.

Harjot is able to save 40% of his income per week, Israel $\frac{3}{8}$ of his income per week, and Tuor 0.61 of his income per week, to put towards their saving for the trip.

The cost for the **return** air tickets is \$2800, plus GST (15%), **each**.

They estimate for each day they are in Europe, **between them** they will need on average NZ\$320 (to the nearest \$10) when they are not on the bus trip. This will pay for accommodation, food and spending money.(all 3)

The 2 week bus trip costs \$1200 Euro dollars per person.

The Exchange rate is: 1 NZ Dollar = 0.6359 Euro's (European dollars).

Task Instructions

Savings:

Work out how much Harjot, Israel and Tuor are able to save.

Costs:

Work out how much it will cost Harjot, Israel and Tuor to go on their trip to Europe.

Recommend savings plan:

Recommend how long it will take Harjot, Israel and Tuor to save for their trip.

Further recommendations:

Discuss any difficulties or changes that may occur before Harjot, Israel and Tuor go on their trip.

Part B.

After their trip the trio, Harjot, Israel and Tuor found out that the amount of money they spent on buying souvenirs among three of them was in the ratio 5:7:3.

- 1) Who spent the most?
- 2) What is the minimum amount they could have spent altogether?
- 3) If the total amount of money they spent on souvenirs was at least \$320.00.
Calculate the minimum amount that each person might have spent to the nearest \$.

For Markers use only: N A M E

	Evidence		Sufficiency
A c h i e v e d	Percentage of calculation		4 out of 5 required
	Fraction of calculation		
	Decimal of calculation		
	GST Calculation		
	Exchange rate calculation		
	All answers clearly communicated		Required
M e r i t	Recommended Savings Plan		Both required
	Appropriate mathematical statements throughout e.g. correct use of units		
E x c e l e n c e	At least one clear and relevant factor with supporting evidence / explanation / calculation		Both required
	Mathematical insight in solution or explanation		

