

Exchange rates

- The value of the New Zealand dollar changes with time.
- Its value also changes in relation to other currencies.
- Changes in its value are important when calculating the cost of overseas goods or travel.
- You can use the same method as in proportion calculations.

Exchange rates used in the examples and exercises:

\$NZ1 = €0.65 (euro)

NZ1 = £0.49 (pounds sterling)

\$NZ1 = \$US0.74 (US dollar)

Example 1: Michelle takes \$3000 spending money with her to the United States. How many \$US is that worth?

$$$NZ1 = $US0.74$$

$$\therefore $NZ3000 = $US0.74 \times \frac{3000}{1}$$

$$= $US2220$$

Example 2: Ali returns to New Zealand with €8500 earned while working in the Netherlands. How many \$NZ will he get when he banks it?

$$€0.65 = $NZ1$$

$$∴ €8500 = $NZ1 \times \frac{8500}{0.65}$$

$$= $NZ13 076.92$$

Solve the following exchange rate problems.

1	Convert \$NZ2500 to €.	2	Convert \$NZ2500 to \$US.
3	Convert \$NZ2500 to £.	4	Convert €150 to \$NZ.
5	Convert \$US600 to \$NZ.	- - 6	Convert £15 to \$NZ.
			

Mini-task

Anita is determined to get fit. She will join a gym. She investigates prices and finds that:

- George's Gym charges \$260 for a three month subscription, or \$850 for a year.
- Freddie's Fitness will give her the first month free, and then it charges \$85 per month.
- Annie's Action charges \$480 for each six month subscription, but they pay the GST for the first six months.

She has found the model of running shoes that she wants, and discovers that she can buy them for:

- \$245 at her local sports shop
- \$US170 on the internet. Currently \$NZ1 = \$US0.7014.
- £GB101.50 on the internet. Currently \$NZ1 = £GB0.4520.

As part of her fitness regime she is going to run 1 km on the first day, and she will increase the distance she runs by 10% per day.

Complete the table and use the space below to answer the following questions.

- Which gym will be cheapest for her if she joins for six months?
- Which gym will be cheapest for her if she joins for one year?
- Where should she buy her running shoes? Explain.
- How far does she run on day 7, and what is the total distance she covers during the first week?

	Six month	ìŝ	One yea	
George's Gym	,	<u>.</u>		
Freddie's Fitness				
Annie's Action				
				•