Maths Week/Pāngarau Wiki 2025

Daily Dollar/Ko te Tāra o te Rā

Bill Ellwood Memorial Series

This series is a tribute to Bill Ellwood, who wrote much of the Maths Week material from 2006 to 2019. Bill passed away in June 2021.

Set B Day 3

For students

WHAT TO DO FOR STUDENTS

1 **You may work on your own or with someone else, and your teacher or someone else can help you.**

2 **Answer the questions.**

3 **Each question has a dollar value. Each day's questions total $100 in value.**

4 **When you have answered the questions, your teacher will give you the answers.**

5 **If you are right, you will get the dollar value for each question. You then you can work out how many dollars you have earned for the day.**

6 **Add the number of dollars you have earned each day in the Daily Dollar questions and get a total for the week. Then you can compare your total for the week with others in your class.**

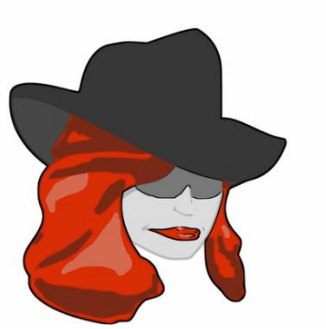
7 **Perhaps your teacher may award a prize for the highest total for the week!**

8 **Good luck!**

THE SECRET CODE

Write the answer to each question in the space provided.

Question 1 ($20)



Secret agent, A, has found the location of the lair of the sinister Doctor Evilalot. She has hidden the location in the following messages using a secret code. Time is of the essence. Can you decipher the code and the messages? Agent A has created the code by translating the letters in the alphabet - moving each letter by the same number of places. Complete this coding table.

Answer

A	B	C	D	E	F	G	H	I	J	K	L	M
8	9						15		17			20
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
	22			25	26	1						

Use the decoding table in Question 1 to decode the following messages.

Question 2 ($20)

The location of the lair is in this city.

15 8 26 1 16 21 14 26

Answer

Question 3 ($20)

The lair is in this suburb of the city.

20 8 6 13 8 16 25

Answer

Question 4 ($20)

Buried deep underneath this location, Dr Evilalot hides.

9 16 19 19 20 8 1 15 12 4 26 22 21 23
8 25 18

Answer

Question 5 ($20)

(a) This last message was slightly scrambled in transmission. See if you can unscramble secret agent A's final message.

20 8
12 3 6 25
15 21 2 6 14 25
26 12 21 11
18 8 16

(b) Create your own message and translate it using the same key. Once you are finished, share your code with a partner and decode each other's message.

Answer