1) Complete the table.

100 less	10 less	Number	10 more	100 more
		7524		
		6006		
			4301	
1486				

2) Fill in the missing values.

2546	–	100	=	
993	+	100	=	
10	+		=	6188
	–	10	=	1597

Isla is a marine biologist. She has been tagging fish with trackers to monitor their journeys.

1) Isla predicts that each clownfish will have swum 100 metres more by the time they next download the data. Which predictions has she calculated correctly? Explain any errors she has made.

Fish	A	B	C	D	E
Distance swum	356 metres	819 metres	115 metres	930 metres	592 metres
Predicted new distance	366 metres	919 metres	15 metres	1930 metres	692 metres

2) Jay is Isla's assistant. He says, "It's easy to add 100 to a number – you just add one to the hundreds digit."

Do you agree with Jay? Explain your answer.

1) a) Raj the marine researcher notices that the tide has an effect on the journey of the pufferfish. It takes a pufferfish 5 minutes to swim 100 metres. However, for every 100 metres it swims, the tide pushes it back 10 metres. Complete the table to show how far each pufferfish will have swum at each time.

	Dwarf Puffer	Green Spotted Puffer
Previous distance swum	652 metres	metres
After 5 minutes	metres	metres
After 10 minutes	metres	565 metres
After 15 minutes	metres	metres
After 20 minutes	metres	metres

b) What happens to each digit in the number each time? Can you spot a pattern?

c) Is this pattern always true? Give an example to explain your answer.

2) a) Work out how far each pufferfish would swim when the tide changes direction. This would mean that, every 5 minutes, the fish swims 100 metres and the tide pushes it forwards another 10 metres.

	Dwarf Puffer	Green Spotted Puffer
Previous distance swum	652 metres	metres
After 5 minutes	metres	metres
After 10 minutes	metres	605 metres
After 15 minutes	metres	metres
After 20 minutes	metres	metres

b) What happens to each digit in the number each time? Can you spot a pattern?

c) Is this pattern always true? Give an example to explain your answer.