



Assessment: Go with the flow!

Assessment task

Students will use their understanding of an algorithm that will generate a sequence using multiplication and record the sequence of numbers generated.

Guidance:

Assessing student understanding will involve checking results and describing any emerging patterns.

The assessment of student understanding for this task may include:

- Understand the purpose and use of generating a sequence of numbers using an algorithm
- Accuracy of calculations and recording the sequence of numbers generated
- Checking for accuracy and describing any emerging patterns

To complete the task, provide time for students to firstly consider the problem and then think about ways to model their solution mathematically.

no.	Question	Expected student response
Q1.	List the 9 times table facts she needs help with.	The tables that Flo needs help with are 5, 7 and 12.
Q2	What rule could Flo use in her spreadsheet to make sure the sequence is correct?	She should choose a =A1*9 =A1+9 This rule adds 9 =A1/9 This rule divides by 9
Q3	How would you use your rule to generate a sequence of numbers for the nine times tables? a. What number would be in B14 of the spreadsheet? b. How can you use your table to work out 26 multiplied by 9? c. Would 333 be a multiple of 9? How do you know?	Use the rule on A1 and then fill down the rest of the column to create the sequence (or similar answer) B14 would be the product of 13 x 9 which is 117. Need to extend the sequence to include 26 in the A column (or similar answer) Yes 333 is a multiple of 9. Might suggest that adding the 3 digits together adds to 9 which is a pattern of 9 time tables. Could use the spreadsheet to check. Could divide by 9 to check (or similar answers).
Q4	Can you suggest a way to help her revise the 7 times tables?	Similar answers to use a rule such as =A1*7 and fill down using 1-12 in column A Or other relevant ways that would seem to help.



Go with the flow!

Flo created a table in a spreadsheet to help her practise and revise her 9 times tables.

She recorded the sequence of numbers, recalling her 9 times tables.

Flo realised that she made a few mistakes. Can you find and fix them to help Flo practise her 9 times tables?

	A	B
1	0	0
2	1	9
3	2	18
4	3	27
5	4	36
6	5	48
7	6	54
8	7	61
9	8	72
10	9	81
11	10	90
12	11	99
13	12	109
14		

1. List the 9 times table facts she needs help with.

2. What rule could Flo use in her spreadsheet to make sure the sequence is correct? She isn't sure which one is correct. Which would you use and why?
 - a. $=A1*9$
 - b. $=A1+9$
 - c. $=A1/9$

3. How would you use your rule to generate a sequence of numbers for the nine times tables?
 - a. What number would be in B14 of the spreadsheet?
 - b. How can you use your table to work out 26 multiplied by 9?
 - c. Would 333 be a multiple of 9? How do you know?

4. Flo is also practising her 7 times tables. Can you suggest a way to help her revise the 7 times tables?