Mrs Asif's

HomeWork TakeaWay

Please complete at least 3 tasks on a separate piece of paper or online.

Challenge yourself to try tasks at different levels of spice!

Research and apply- 10 points What is the nth term of a sequence? 1. Find the nth term for the following sequences a. 5, 8, 11, 14…20, 23, 26, 29… b. 5, -1, -7, -13… 2. Use your answers above to find the 100th term in the sequences		Research and problem solving- 10 points 1. What is the nth term of a sequence? 2. Kaitlyn has written the first 50 terms of the sequence with nth term 150 − 4n. Work out which term is the first negative term.
Create- 8 points 1. Create a numerical sequence and a diagrammatic sequence for the following: a. Linear sequence b. Non linear sequence c. Geometric sequence 2. Find out what a quadratic sequence is and write two examples.	Problem solving- 8 points It is gardening time in my house! I have a mathematical plant which grows in a mathematical way. Last week, the stem spilt into two branches, this week it has spilt into another two branches. This will happen for another 4 weeks after which flowers will appear. How many flowers should I expect to see? Another plant grows in the exact same way. How many weeks in total will it take to grow 4,096 branches?	Problem solving- 8 points Explain your answers for the following questions. 1. Is the number 300 in the following sequences? a. 3, 6, 9, 12… b. 4, 7, 10, 13,… 2. Is 205 a term in the sequence 1,5,9,13?
Skills practice- 4 points Use each term-to-term rule to write down the first five terms of a sequence. Start from a first term of 3: a. Add 7 b. Subtract 2 c. Multiply by 2	Skills practice- 5 points Work out the next two terms in each sequence. Describe the term to term rule you have used: a. 4, 9, 14, 19, 24… b. 2, 6, 10, 14, 18, 22 … c. 12, 5, -2, -9 … For 3 extra points: What is the 10th term for the sequences above?	Skills practice- 5 points Work out two terms between each pair of numbers, to form a linear sequence. Describe the term to term rule you have used: a. 10, …., ……, 40 b. 80, …., ….., 10 c. 3, …., ….., 15
Literacy- 2 points Define the words: Term Term to term rule Sequence Linear sequence Non linear sequence Ascending Descending Consecutive	Research- 2 points Who is Fibonacci and what is the Fibonacci sequence? For 8 extra points: Create a beautiful and informative poster about Fibonacci and his contribution to Mathematics. This can be done online or on paper.	Memory- 3 points What are triangular, square and cube numbers? Memorise the first 5 numbers in a triangular, square and cube sequence.