1. Here is a number sequence.

     4   8   12   16   20   24   28

   (i) Complete this statement about the sequence.

        (a) All the numbers in the sequence are . . . . of

        (b) All the numbers in the sequence are multiples of . . . . . .

   (ii) Write down the next term in the sequence

2. Here are the first five terms of an arithmetic sequence.

     5   9   13   17   21

   (i) Write down the term to term rule of the sequence
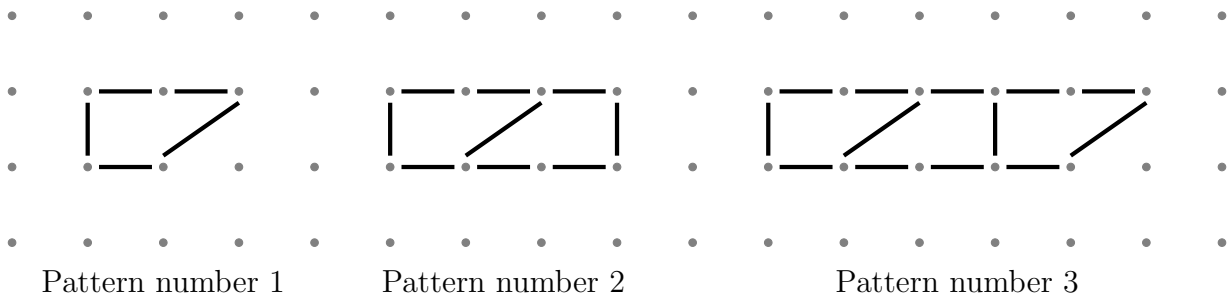
   (ii) Write down the next term of the sequence

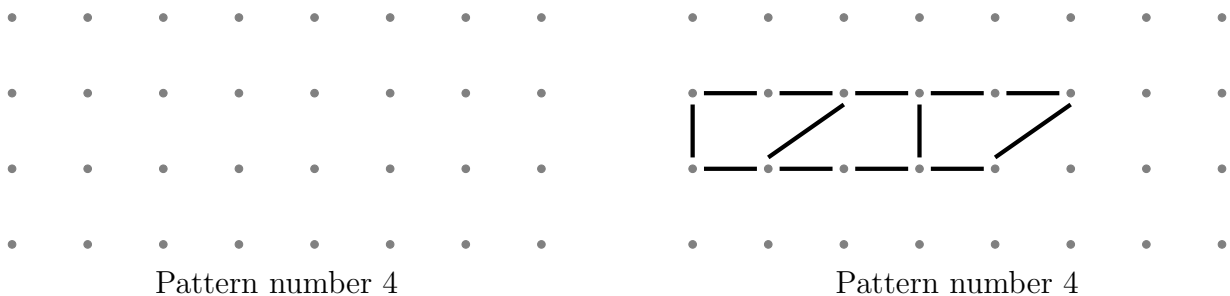3. Here are the first five terms of an arithmetic sequence.

     2   8   14   20   26

   Find the 8th term of this sequence. {OR 10th OR 12th OR 15th term}

4. Here is part of a sequence of patterns made from sticks.

   Pattern number 1   Pattern number 2   Pattern number 3

   (a) In the space, below draw Pattern number 4 {OR ... **complete** Pattern number 4 }

   Pattern number 4   Pattern number 4

   (b) Complete the table

Pattern number	1	2	3	4	5
Number of sticks	5	9	13		

5. Here are the first three patterns in a sequence.

   The patterns are made of sticks.

   Pattern number 1   Pattern number 2   Pattern number 3
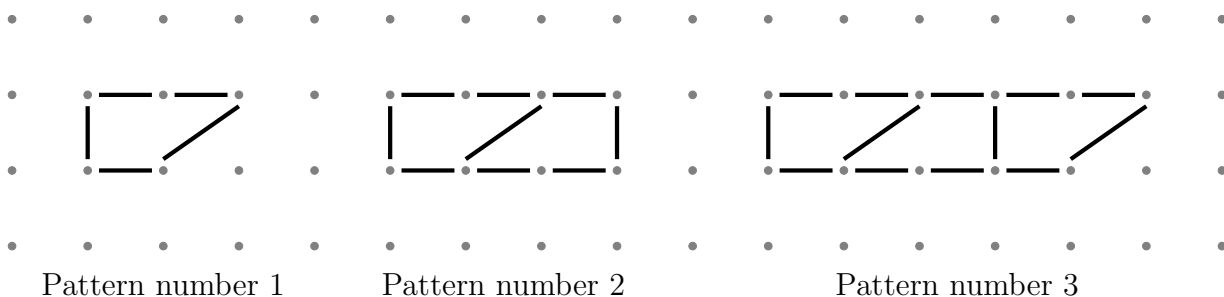
   How many sticks are there in pattern number 7?

6. (a) Here are the first five terms in a sequence.

   16   13   10   7   4

   Write down the 8th term of the sequence.

   (b) Here are the first four terms in a number sequence.

   33   27   21   15

   (i) Write down the term to term rule of the sequence . . . .

   (ii) Write down the next term of the sequence   . . . . .

7. Here are the first five terms of an arithmetic sequence.

   2   8   14   20   26

   (a) Noah thinks that the number 64 is in this sequence.
       Is Noah correct?
       You must show how you get your answer.

   (b) Is 64 a term of the sequence? {OR asked in a slightly different way}
       Explain how you got your answer.

8. Here are the first five terms of a sequence. {NOT an exam question, but VERY useful}

   5   10   15   20   25

   An expression for the nth term of this sequence is $5n$

   Write down in terms of n, an expression for the nth term of a sequence whose first five terms are

   7   12   17   22   27

9. The nth term of a number sequence is given by $3n+1$ {TABLE on calculator encouraged}

   Work out the first **four** terms of the number sequence

10. (a) Write down the 19th odd number.

    (b) These five even numbers form an arithmetic sequence

          2   4   6   8   10

       (i) Write down, in terms of n, an expression for the nth term of this sequence   . . . .

       (ii) Write down the 25th even number   . . . .

    (c) An expression for the nth term of this sequence of even numbers is $2n$

          2   4   6   8   10

    Write down

    (i) an expression, in terms of n, for the nth term of this sequence of odd numbers

          1   3   5   7   9   . . . .

    (ii) the 14th odd number   . . . .

11. NC (Same as Strand 9 but now without calculator)

    The nth term of a number sequence is given by $3n + 1$.

    Work out the first **four** terms of the number sequence

12. The nth term of a number sequence is given by $7n - 4$.

    Is 120 a term of this number sequence?

    Explain how you get your answer.

13. CALCULATOR OK

    Here are the first four terms of an arithmetic sequence.

        5   8   11   14

    Find, in terms of n, an expression for the nth term of this arithmetic sequence.

14. NC (Same as Strand 11 but now without calculator)

    Here are the first four terms of an arithmetic sequence.

        5   8   11   14

    Find, in terms of n, an expression for the nth term of this arithmetic sequence.