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
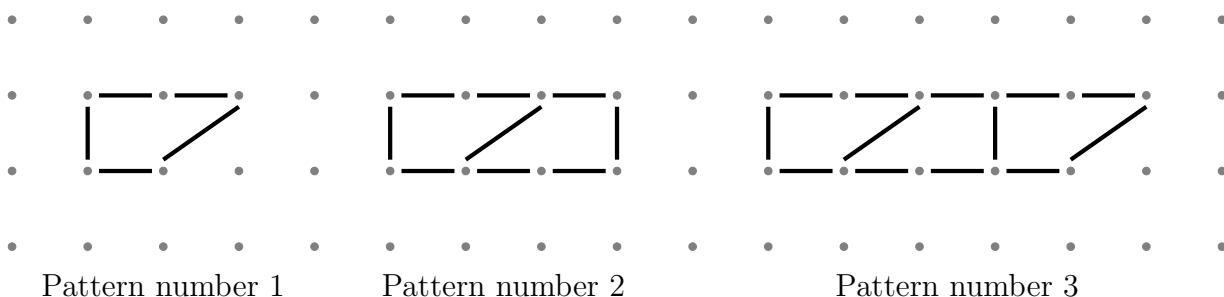
   (ii) Write down the next term of the sequence

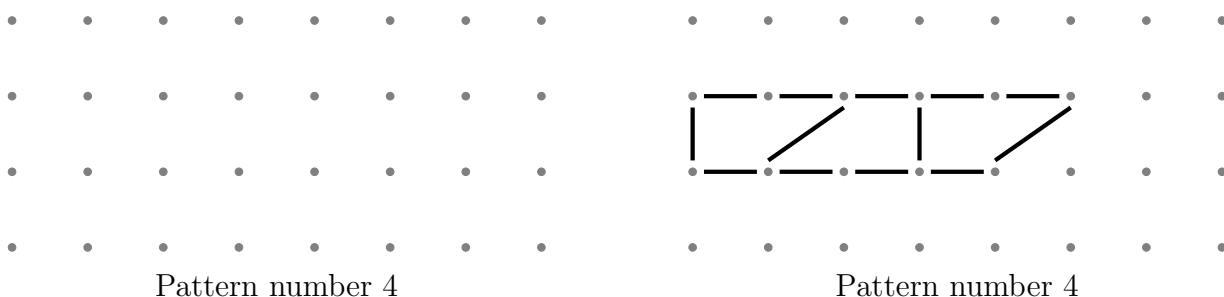3. Here are the first five terms of an arithmetic sequence.

   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
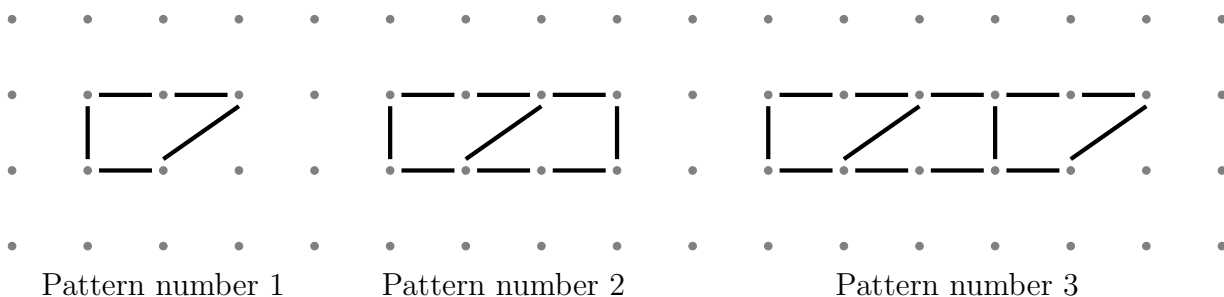
   How many sticks are there in pattern number 7?

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