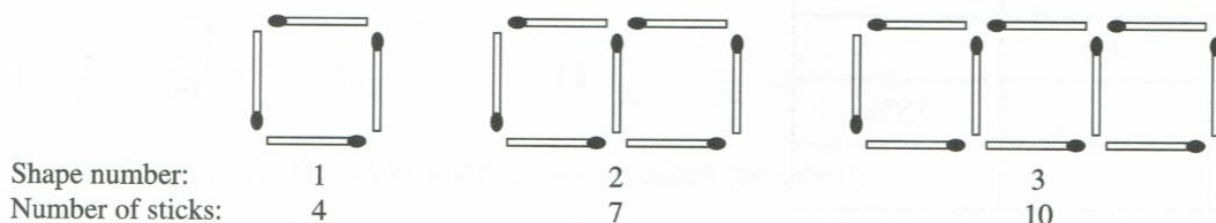


Sequences and Multiples Revision

- 1) Write out the first 6 multiples of 8
- 2) Find the first multiple of 6 and a multiple of 4 that is above 100.
- 3) Write out the first 4 terms of the following sequences:
 - a) 1st term = 5, term to term rule: add 7
 - b) n^{th} term = $5n-1$
 - c) 1st term = 5, term to term rule: multiply by 3
 - d) n^{th} term = n^2+2
- 4) Find the n^{th} term formula and the 30th term of the following sequences
 - a) 2, 6, 10, 14, ...
 - b) 11, 14, 17, 20, ...
 - c) 29, 27, 25, 23, ...
 - d) 5, 10, 15, 20, ...
 - e) 1, 4, 9, 16, 25, ...
- 4) Is 67 a term in the sequence: n^{th} term = $5n+7$? Show how you know.
- 5) Is 52 a term in the sequence: n^{th} term = $3n+2$? Show how you know.

- 6) Here is a sequence of shapes made from sticks



- a) how many matchsticks are in the next pattern?
- b) how many matchsticks are used in the n^{th} pattern?
- c) in which pattern are 64 matchsticks used?

- 7) Find the next two terms of the following sequences

- a) 2, 5, 10, 17, 26, ...
- b) 3, 4, 7, 11, 18, 29, ...

- 8) Write out the first 5 terms of the sequence, n^{th} term = n^2
 Use this sequence to find the n^{th} term for 2, 5, 10, 17, 26, ...

Ans 1) 8, 16, 24, 32, 40, 48 2) 108 3a) 5, 12, 19, 26 b) 4, 9, 14, 19 c) 5, 15, 45, 135
 d) 3, 7, 11, 18 4a) $4n-2$ 128 b) $3n+8$ 98 c) $-2n+31$ -59 d) $5n$ 150 e) n^2 900
 4) yes, $67 - 7 = 60$ which is divisible by 5 5) no, $52 - 2 = 50$ which isn't divisible by 3
 6a) 13 b) $3n+1$ c) 21st pattern 7a) 37, 50 b) 47, 76 8) 1, 4, 9, 16, 25, ... n^{th} term = n^2+1