5F

1.

1. 1 x 9 + 1 = 10
   12 x 9 + 2 = 110
   123 x 9 + 3 = 1110
   1234 x 9 + 4 = 11110
   12345 x 9 + 5 = 111110
   123456 x 9 + 6 = 1111110

2. 9 x 9 + 7 = 88
   98 * 9 + 6 = 888
   987 x 9 + 5 = 8888
   9876 x 9 + 4 = 88888
   98765 x 9 + 3 = 888888
   987654 x 9 + 2 = 8888888

3. 1 x 8 + 1 = 9
   12 x 8 + 2 = 98
   123 x 8 + 3 = 987
   1234 x 8 + 4 = 9876
   12345 x 8 + 5 = 98765
   123456 x 8 + 6 = 987654

4. 111 ÷ 3 = 37
   222 ÷ 6 = 37
   333 ÷ 9 = 37
   4044 ÷ 12 = 37
   555 ÷ 15 = 37
   666 ÷ 18 = 37

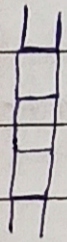
4. i. A

ii. A

n	1	2	3	4	5
L	2	4	6	8	10

(iii) $L = 2n$ (iv) (1) 24 (2) 40

5a



i. $F = 3n + 2$

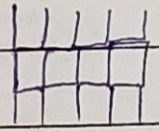
ii. 50 and 92

b.

i. $F = 4n + 1$

ii. 65 and 121

c.



(i) $F = 5n + 3$

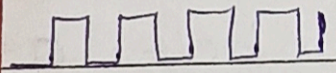
(ii) 83 and 153

d.

(i) $F = 5n + 1$

(ii) 81 and 151

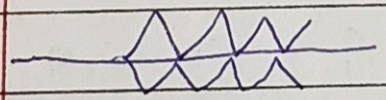
e



ii $F = 4n - 2$

ii 65 and 121

F



i $F = 4n - 2$

ii 62 and 118

2.

i

6	7	2	834 = 12 (2)
1	5	9	672 = 12
8	3	4	159 = 12

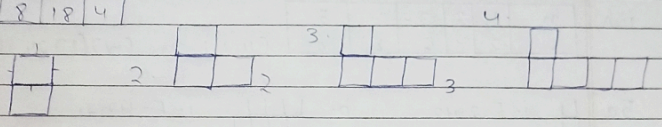
4	9	8	47 10 = 21
11	7	3	
6	5	10	

iii

16	2	12
6	10	14
8	18	4

16 + 10 + 4 = 30

3 i



1 Figure 7 matchstick 2 Figure 10 matchstick

3 Figure 13 matchstick 4 Figure 16 matchstick

ii Find how many matchstick are

(i)

n	1	2	3	4
S	7	10	13	16

+3 +3 +3

∴ S = 3n + 4 (i) (1) 49

ii 15th figure = S = 3n + 4 3 × 15 + 4 = 49

40th figure = S = 3n + 4 3 × 40 + 5 = 125

iii Number of matchstick (S) is equal of four more than three times the number of the figure