

Exercise - 5 (CF)

$$1) \therefore 1 \times 9 + 1 = 10$$

$$12 \times 9 + 2 = 110$$

$$123 \times 9 + 3 = 1110$$

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$$1234 \times 9 + 4 = 11110$$

$$12345 \times 9 + 5 = 111110$$

$$123456 \times 9 + 6 = 1111110$$

$$9 \times 9 + 7 = 88$$

$$98 \times 9 + 6 = 888$$

$$987 \times 9 + 5 = 8888$$

$$9876 \times 9 + 4 = 88888$$

$$98765 \times 9 + 3 = 888888$$

$$987654 \times 9 + 2 = 8888888$$

$$1 \times 8 + 1 = 9$$

$$12 \times 8 + 1 = 98$$

$$123 \times 8 + 1 = 987$$

$$1234 \times 8 + 1 = 9876$$

$$12345 \times 8 + 1 = 98765$$

$$123456 \times 8 + 1 = 987654$$

iv $111 \div 3 = 37$

$$222 \div 6 = 37$$

$$333 \div 9 = 37$$

$$444 \div 12 = 37$$

$$555 \div 15 = 37$$

$$666 \div 18 = 37$$

2) i.

6	7	2
1	5	9
8	3	4

• Row-wise sum -

$$6 + 7 + 2 = 15$$

$$1 + 5 + 9 = 15$$

$$8 + 3 + 4 = 15$$

• Column wise sum

$$6 + 1 + 8 = 15$$

$$7 + 5 + 3 = 15$$

$$2 + 9 + 4 = 15$$

• Diagonal wise sum -

$$6 + 5 + 4 = 15$$

$$2 + 5 + 8 = 15$$

4	9	8
11	7	3
6	5	10

• Row wise sum -

$$4 + 9 + 8 = 21$$

$$11 + 7 + 3 = 21$$

$$6 + 5 + 10 = 21$$

• Column wise sum

$$4 + 11 + 6 = 21$$

$$9 + 7 + 5 = 21$$

$$8 + 3 + 10 = 21$$

• Diagonal wise sum -

$$4 + 7 + 10 = 21$$

$$6 + 7 + 8 = 21$$

iii

16	2	12
6	10	14
8	18	4

• Row wise sum -

$$16 + 2 + 12 = 30$$

$$6 + 10 + 14 = 30$$

$$8 + 18 + 4 = 30$$

• Column wise sum -

$$16 + 6 + 8 = 30$$

$$2 + 10 + 18 = 30$$

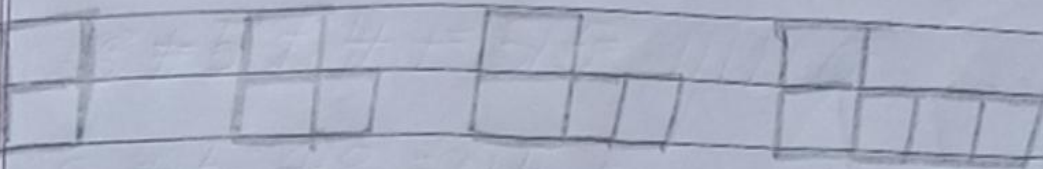
$$12 + 14 + 4 = 30$$

• Diagonal wise sum -

$$16 + 10 + 4 = 30$$

$$12 + 10 + 8 = 30$$

3)



A

N	1	2	3	4
S	7	10	13	16

$$S = 3n + 4$$

ii.

A-

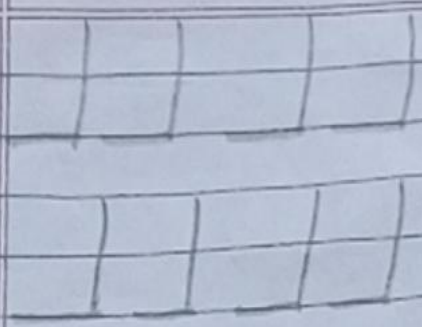
① 15th figure has $= 3 \times 15 + 4$
 $= 49$ matches

② 40th figure has - $3 \times 40 + 4$
 $= 124$ matches.

4)i. In the pattern, draw next two figure-



A-



ii. Construct a table to describe the figures.

A	N	1	2	3	4	5
	L	2	4	6	8	10

iii. If n denotes the number of figures and L denotes the number of matchsticks. Find L in terms of n .

A The value of the L is

$$L = 2n$$

iv. Find the 12th and 20th Figure.

A- (1) Number of matchsticks

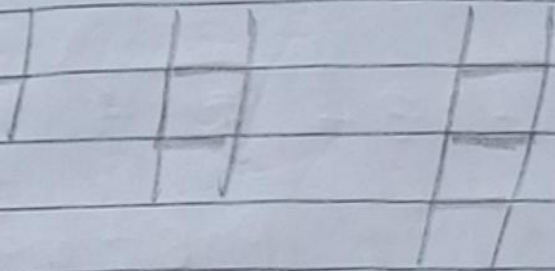
in 12th figure = $2 \times 12 = 24$

(2) Number of matchsticks in

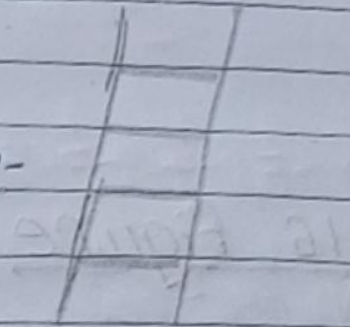
20th figure - $2 \times 20 = 40$

5.

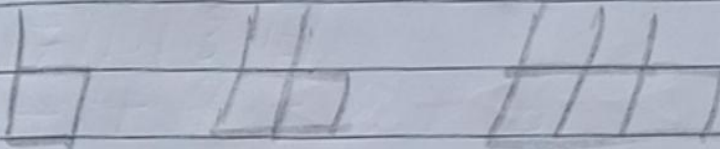
a) ~~4~~



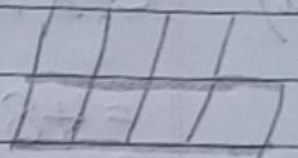
Answer-



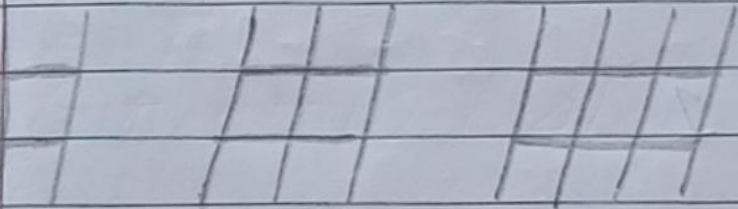
b)



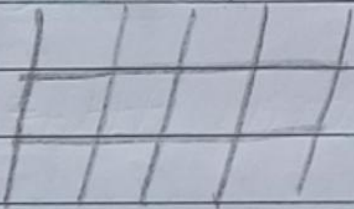
Answer-



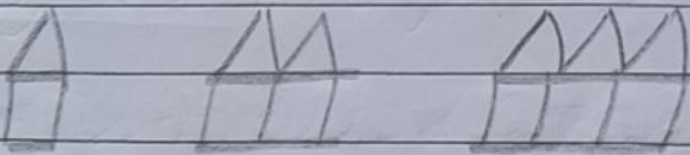
c)



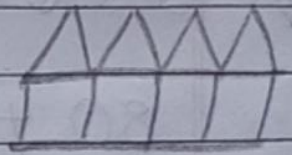
Ans-



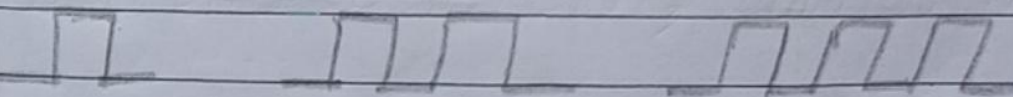
d)



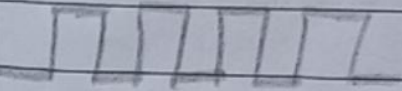
Answer-



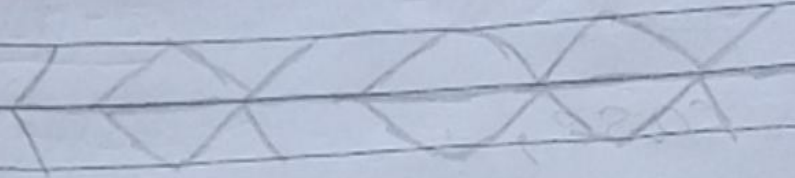
e)



Ans-



F)



Ans -

16 Figure

$$a) 3 \times 16 + 2$$

$$= 48 + 2$$

$$= 50$$

$$b) F = 4 \times 16 + 1$$

$$= ~~80 + 3~~ 64 + 1$$

$$= ~~83~~ 65$$

$$c) F = 5 \times 16 + 3$$

$$80 + 3$$

$$= 83$$

$$d) F = 5 \times 16 + 1$$

$$= 80 + 1$$

$$= 81$$

$$e) F = 4 \times 16 + 1$$

$$= 64 + 1$$

$$= 65$$

$$f) F = 4 \times 16 - 2$$

$$= 64 - 2$$

$$= 62$$

30th Figure

$$a) F = 3 \times 30 + 2$$

$$~~90~~ + 2 = 90 + 2$$

$$= 92$$

$$b) F = 4 \times 30 + 1$$

$$= 120 + 1$$

$$= 121$$

$$c) F = 5 \times 30 + 3$$

$$= 150 + 3$$

$$= 153$$