CW
7/08/21

Date
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EXERCISE - 5 (F)

1.

(i) $1 \times 9 + 1 = 10$

$12 \times 9 + 2 = 110$

$123 \times 9 + 3 = 1110$

→ $1234 \times 9 + 4 = 11110$

→ $12345 \times 9 + 5 = 111110$

→ $123456 \times 9 + 6 = 1111110$

(ii) $9 \times 9 + 7 = 88$

$98 \times 9 + 6 = 888$

$987 \times 9 + 5 = 8888$

→ $9876 \times 9 + 4 = 88888$

→ $98765 \times 9 + 3 = 888888$

→ $987654 \times 9 + 2 = 8888888$

(iii) $1 \times 8 + 1 = 9$

$12 \times 8 + 2 = 98$

$123 \times 8 + 3 = 987$

$1234 \times 8 + 4 = 9876$

$12345 \times 8 + 5 = 98765$

$123456 \times 8 + 6 = 987654$

2.

(i)

6	7	2
1	5	9
8	3	4

(ii)

4	9	8
11	7	3
6	5	10

(iii)

16	2	12
6	10	14
8	18	4

MAGIC SQUARES

(i)

6	7	2
1	5	9
8	3	4

R_1- $6+7+2 = 15$
R_2- $1+5+9 = 15$
R_3- $8+3+4 = 15$

C_1- $6+1+8 = 15$
C_2- $7+5+3 = 15$
C_3- $2+9+4 = 15$

D-1 $6+5+2 = 15$
D-2 $2+5+8 = 15$

3.

(i) Ans - (i) $= 3 \times n + 4$
$= 3 \times 1 + 4$
$= 7$

n	1	2	3	4
5	7	10	13	16

$3 \times 2 + 4$ $3 \times 3 + 4$ $3 \times 4 + 4$
$= 10$ $= 13$ $= 16$

(ii)

1) 15th figure

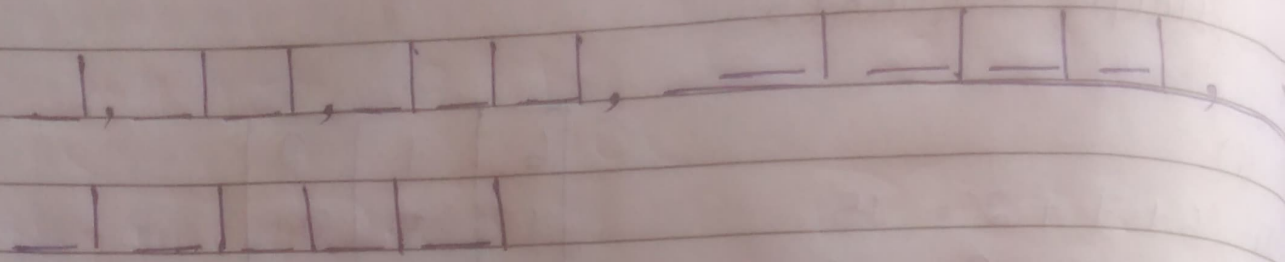
$3 \times 15 + 4$
$= 49$

2) 40th figure

$3 \times 40 + 4$
$= 124$

(ii) We can easily observed that each time the fig number (n) by 1, the number of matchsticks (M) increase by 3.

4.

i) 

ii)

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

iii) ~~1st figure~~
~~2 × n + 2n~~
= L = 2n

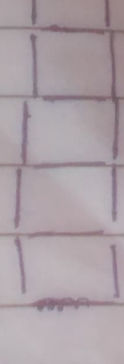
iv)
(i) 12th figuree 2) 20th figure

ans - 2 × 12
= 24 (L)

ans. 2 × 20
= 40 (L)

HW

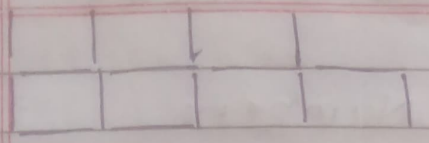
5.

a) 

(i) 3n + 2

ii) 16th figure = 3 × 16 + 2
= 50

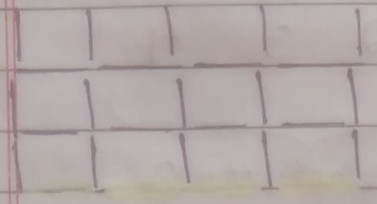
30th figure = 3 × 30 + 2
= 92

b) 

i) $4n + 1$

ii) 16th figure $= 4 \times 16 + 1$
$= 65$

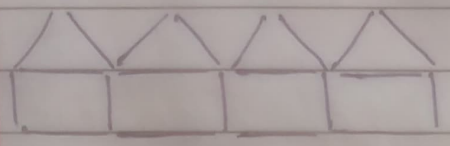
30th figure $= 4 \times 30 + 1$
$= 121$

c) 

i) $5n + 3$

ii) 16th figure $= 5 \times 16 + 3$
$= 83$

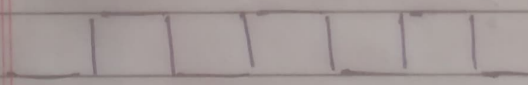
30th figure $= 5 \times 30 + 3$
$= 153$

d) 

i) $5n + 1$

ii) 16th figure $= 5 \times 16 + 1$
$= 81$

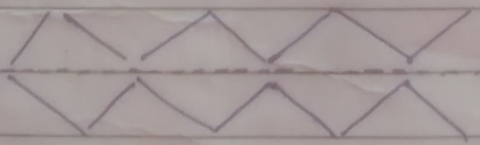
30th figure $= 5 \times 30 + 1$
$= 151$

e) 

i) $4n + 1$

ii) 16th figure $= 4 \times 16 +$
$= 65$

30th figure $= 4 \times 30 +$
$= 121$

f) 

~~i) 4n~~

i) $4n - 2$

ii) 16th figure $= 4 \times 1$
$= 62$

30th figure $= 4 \times 30 -$
$= 118$