

07-08-2021

### Ex - 5.F

1) For each pattern, given bellow, write the next three step:

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) Ans

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

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

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

iii) Ans

~~$$1234 \times 8 + 4 = 987$$~~

$$1234 \times 8 \times 4 = 9876$$

$$1234 \times 8 \times 5 = 98765$$

$$123456 \times 8 \times 6 = 987654$$

iv) Ans

$$444 \div 12 = 37$$

$$555 \div 15 = 37$$

$$666 \div 18 = 37$$

2) Complete each of the following magic squares

i)

6	7	<u>2</u>
1	5	9
8	<u>3</u>	4

ii)

4	<u>9</u>	8
<u>11</u>	7	3
<u>6</u>	<u>5</u>	10

16	2	12
6	10	14
8	18	4

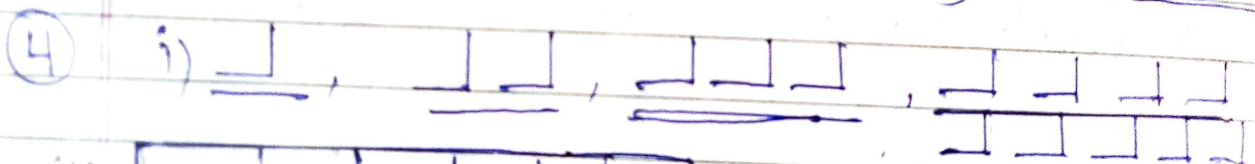
③ i)  $N$  = Number of figure  
 $S$  = Number of matchstick

$N$	1	2	3	4
$S$	7	10	13	16

i)  $S = 3n + 4$  ( $S$  in term of  $N$ )

ii) 1) 15<sup>th</sup> figure =  $N = 15$   
 $S = (3 \times 15) + 4 = 49$  - Ans

2) 40<sup>th</sup> figure =  $N = 40$   
 $S = (3 \times 40) + 4 = 124$  - Ans



ii)

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

$N$  = Number of figure  
 $L$  = Number of Matchstick

iii)  $L = 2n$  ( $L$  in term of  $N$ )

iv) i) 12<sup>th</sup> figure =  $N = 12$ ,  $L = 2n = 12 \times 2 = 24$  - Ans

ii) 20<sup>th</sup> figure =  $N = 20$ ,  $L = 2n = 2 \times 20 = 40$  - Ans



Hew  
07/06-2021

Ex - 5 - F

5) a)

N =	1	2	3
F =	5	8	11

N = Number of figure  
F = Number of matchstick

i)  $F = 3n + 2$

ii) 16<sup>th</sup> figure =  $N = 16$

$$F = (3 \times 16) + 2 = \boxed{50 - \text{Ans}}$$

30<sup>th</sup> figure =  $N = 30$

$$F = (3 \times 30) + 2 = \boxed{92 - \text{Ans}}$$

b)

N =	1	2	3
F =	5	9	13

i)  $F = 4n + 1$

ii) 16<sup>th</sup> figure =  $N = 16$

$$F = (4 \times 16) + 1 = 64 + 1 = \boxed{65 - \text{Ans}}$$

30<sup>th</sup> figure =  $N = 30$

$$F = (4 \times 30) + 1 = 120 + 1 = \boxed{121 - \text{Ans}}$$

c)

N =	1	2	3
F =	8	13	18

i)  $F = 5n + 3$

ii) 16<sup>th</sup> figure =  $N = 16$ ,  $F = (5 \times 16) + 3 = 80 + 3 = \boxed{83 - \text{Ans}}$

30<sup>th</sup> figure =  $N = 30$

$$F = (5 \times 30) + 3 = 150 + 3 = \boxed{153}$$

d)

$N = 1$	$2$	$3$
$F = 6$	$11$	$16$

$$F = 5n + 1$$

16<sup>th</sup> figure =  $N = 16$

$$F = (5 \times 16) + 1 = 80 + 1 = \boxed{81 - Ans}$$

30<sup>th</sup> figure =  $N = 30$

$$F = (5 \times 30) + 1 = 150 + 1 = \boxed{151 - Ans}$$

e)

$N = 1$	$2$	$3$
$F = 5$	$9$	$13$

$$F = 4n + 1$$

16<sup>th</sup> figure =  $N = 16$

$$F = (4 \times 16) + 1 = 64 + 1 = \boxed{65 - Ans}$$

30<sup>th</sup> figure =  $N = 30$

$$F = (4 \times 30) + 1 = 120 + 1 = \boxed{121 - Ans}$$

f)

$N = 1$	$2$	$3$
$F = 2$	$6$	$10$

$$F = 4n - 1$$

16<sup>th</sup> figure =  $N = 16$

$$F = (4 \times 16) - 1 = 64 - 1 = \boxed{63 = Ans}$$

30<sup>th</sup> figure =  $N = 30$

$$F = (4 \times 30) - 1 = 120 - 1 = \boxed{119 - Ans}$$