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

$12 \times 9 + 2 = 110$

$123 \times 9 + 3 = 1110$

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

$98 \times 9 + 6 = 888$

$987 \times 9 + 5 = 8888$

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

$12 \times 8 + 2 = 98$

$123 \times 8 + 3 = 987$

(iv) $111 \div 3 = 37$

$222 \div 6 = 37$

$333 \div 9 = 37$

(i) $1234 \times 9 + 5 = 1111\ldots$

$12345 \times 9 + 5 = 11111\ldots$

$123456 \times 9 + 6 = 1111\ldots$

(ii) $9876 \times 9 + 4 = 888\ldots$

$98765 \times 9 + 3 = 888\ldots$

$987654 \times 9 + 2 = \ldots$

(iii) $1234 \times 8 + 4 = 98\ldots$

$12345 \times 8 + 5 = 98\ldots$

$123456 \times 8 + 6 = 9\ldots$

(iv) $4440 \div 12 = 37$

$555 \div 15 = 37$

$666 \div 18 = 37$

6	7	?
1	5	9
8	3	4

4	9	8
1	7	9
6	5	10

16	?
6	
8	18

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

$12 \times 9 + 2 = 110$

$123 \times 9 + 3 = 1110$

(i) $1234 \times 9 + 4 = 11110$

$12345 \times 9 + 5 = 111110$

$123456 \times 9 + 6 = 1111111$

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

$98 \times 9 + 6 = 888$

$987 \times 9 + 5 = 8888$

(ii) $9876 \times 9 + 4 = 8883$

$98765 \times 9 + 3 = 88888$

$987654 \times 9 + 2 = 888$

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

$12 \times 8 + 2 = 98$

$123 \times 8 + 3 = 987$

(iii) $1234 \times 8 + 4 = 987$

$12345 \times 8 + 5 = 98765$

$123456 \times 8 + 6 = 987654$

(iv) $111 \div 3 = 37$

$222 \div 6 = 37$

$333 \div 9 = 37$

(iv) $4440 \div 12 = 37$

$555 \div 15 = 37$

$666 \div 18 = 37$

6	7	?
1	5	9
8	3	4

4	9	8	16	?
11	7	9	8	10
6	5	10	8	18

③ ③ 15th figure

② 40th figure

(iii) write the description pattern in words.

Ans ①

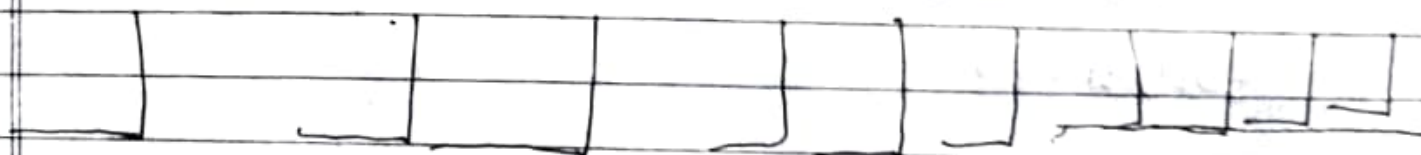| N			2	3	4
S		7	10	13	16

$S = 3n + 4$

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

(2) 40th figure has $3 \times 40 + 4 = 124$ matches

(iii) ✗ it is clear that each time the figure n is

increased 4 the no of matches (s) in by 3.

&4 ④ in the following pattern draw next two figures.

(iii) Hence the value of L is $L = 2n$

(iv) no of match sticks in 12th figure $= 2 \times 12 = 24$

② No of match sticks in 20th figure $= 2 \times 20 = 40$.

Q) 3) i) 15th figure

② 40th figure

(iii) write the description pattern in words-

Ans ①

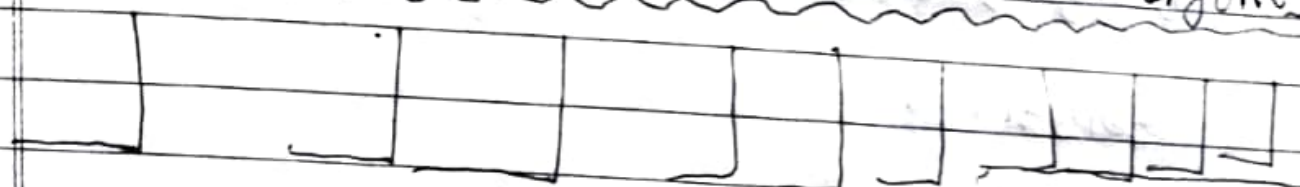| N		2	3	4
S	7	10	13	16

$$S = 3n + 4$$

② (i) 15th figure has $3 \times 15 + 4 = 49$ matches.

(ii) 40th figure has $3 \times 40 + 4 = 124$ matches

(iii) it is clear that each time the figure (n) is increased 4 the no of matches (s) in by 3.

Q ④ 4) in the following pattern draw next two figures

(ii) Hence the value or L is L = 2n

(iv) ① no or match sticks in 12th figure = 2×12 = 24

② No or match sticks in 20th figure = 2×20 = 40.