

The City School

Boys Campus North Nazimabad

Mathematics

Class-11



Task No.1:

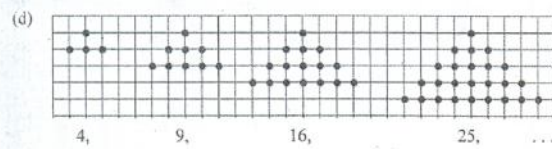
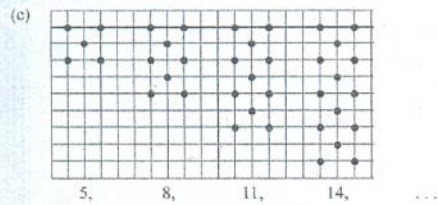
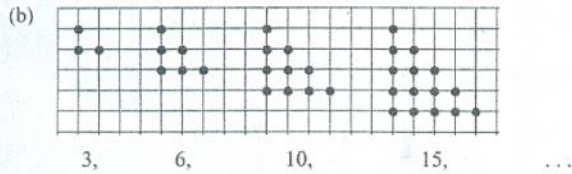
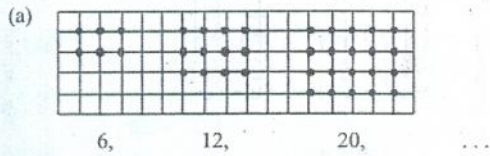
Do the following Past Paper Questions:

1. June 2000 P2 Q.11
2. Dec 2001 P2 Q.11
3. Nov 2008 P2 Q.11
4. June 2001 P2 Q.10
5. Dec 2004 P1 Q.13

Task No.2:

Do the worksheet on Number Pattern and Sequences:

4. For each sequence of patterns, draw the next two shapes and find the next 3 numbers in the sequence.



5. Find the first number in each of the sequences.

(a) , 6, 11, 16, 21, ...

(b) , 7, 9, 11, 13, ...

(c) , 6, 5, 4, 3, ...

(d) , 19, 28, 37, 46, ...

(e) , 12, 9, 6, 3, ...

6. Copy each sequence and write in the next three terms.

(a) 1, 4, 9, 16, 25, ...

(b) 2, 5, 10, 17, 26, ...

(c) 0, 3, 7, 12, 18, ...

(d) 6, 12, 20, 30, 42, ...

(e) 0.5, 2.0, 4.5, 8.0, 12.5, ...

7. Copy each sequence and fill in the missing numbers.

(a) 2, 4, , 16, 32, ...

(b) 100, 81, 64, , 36, ...

(c) 6, 9, , 21, 30, ...

(d) 0, 1.5, 4, , 12, ...

(e) 1, 7, 17, , 49, ...

8. Write down the next two terms in each sequence.

(a) $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$, ...

(b) $\frac{9}{11}$, $\frac{8}{12}$, $\frac{7}{13}$, $\frac{6}{14}$, ...

(c) $\frac{3}{6}$, $\frac{5}{7}$, $\frac{7}{8}$, $\frac{9}{9}$, ...

(d) $\frac{2}{1}$, $\frac{3}{4}$, $\frac{4}{9}$, $\frac{5}{16}$, ...

(e) $\frac{0}{2}$, $\frac{3}{5}$, $\frac{8}{10}$, $\frac{15}{17}$, ...

3. For each sequence, write down the difference between each term and a formula for the n th term.

(a) 3, 5, 7, 9, 11, ...

(b) 5, 11, 17, 23, 29, ...

(c) 4, 7, 10, 13, 16, ...

(d) 2, 5, 8, 11, 14, ...

(e) 6, 10, 14, 18, 22, ...

4. (a) What formula gives the sequence

4, 8, 12, 16, 20, ...

(b) What formula gives the sequence that is the multiples of 5?

5. (a) What is the formula for the n th term of this sequence?

7, 14, 21, 28, 35, ...

(b) How can you get this sequence from the sequence in (a)?

8, 15, 22, 29, 36, ...

(c) What is the formula for the n th term of the sequence in (b)?

7. Write down the formula for the n th term of each of these sequences.

(a) 3, 6, 9, 12, 15, ...

(b) 5, 12, 19, 26, 33, ...

(c) 21, 29, 37, 45, 53, ...

(d) 8, 11, 14, 17, 20, ...

(e) 1, 4, 7, 10, 13, ...

(f) 103, 106, 109, 112, 115, ...

8. (a) Explain why the formula for the n th term of this sequence,

$$\frac{1}{2}, \frac{1}{4}, \frac{1}{6}, \frac{1}{8}, \frac{1}{10}, \dots$$

is $\frac{1}{2n}$.

- (b) What is the formula for the n th term of this sequence?

$$\frac{1}{3}, \frac{1}{5}, \frac{1}{7}, \frac{1}{9}, \frac{1}{11}, \dots$$

9. Find formulae for the n th term of each of these sequences.

(a) $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \frac{5}{6}, \dots$

(b) $\frac{1}{4}, \frac{2}{5}, \frac{3}{6}, \frac{4}{7}, \frac{5}{8}, \dots$

(c) $\frac{1}{10}, \frac{2}{11}, \frac{3}{12}, \frac{4}{13}, \frac{5}{14}, \dots$

(d) $\frac{2}{8}, \frac{4}{9}, \frac{6}{10}, \frac{8}{11}, \frac{10}{12}, \dots$

(e) $\frac{3}{5}, \frac{6}{6}, \frac{9}{7}, \frac{12}{8}, \frac{15}{9}, \dots$

10. The formula for the n th term of this sequence is n^2 .

$$1, 4, 9, 16, 25, \dots$$

What is the formula for the n th term of the following sequences?

(a) 0, 3, 8, 15, 24, ...

(b) 10, 13, 18, 25, 34, ...

(c) 2, 8, 18, 32, 50, ...

(d) 1, 8, 27, 64, 125, ...