Notes of Online class

Session 2

Let us go through some other situations of getting sequences

Examples

1) $10, 20, 30 \cdots$ is the sequence of numbers ending with 0. Write the sequences mentioned below and answer the questions

    a) Write the sequence of numbers having 1 in the one's place

    b) Which is the largest two digit term of this sequence ?

    c) Which is the smallest three digit term of this sequence ?

    d) Which number is added repetedly for writing this sequence?

Answers

    a) $1.11, 21, 31 \cdots$

    b) 91

    c) 101

    d) 10

2) $1, 6, 11, 16 \cdots$ is the sequence of numbers ending in 1 or 6.

    a) Write five more terms of this sequence ?

    b) Which is the largest three digit term of this sequence?

    c) Write the number of terms below 100 by counting

    d) How to write the number of terms below 1000 without counting

Answers

    a) $21, 26, 31, 36, 41$

    b) 996

    c) 20

    d) There are 2 terms below 10 . So number of terms below 1000 is $2 \times 100 = 200$

3) Consider the sequence of numbers which gives the remainder 1 on dividing by 3

    a) Write the sequence .

b) Which is the smallest two digit term of this sequence?

c) How many terms are there upto 25 in this sequence.

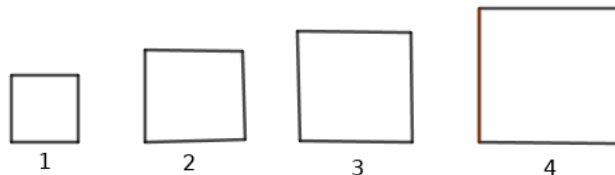d) What are the remainders on dividing the terms by 3

Answers

a) $1, 4, 7, 10 \cdots$

b) 10

c) 9

d) $0, 1, 2$

4) Look at the sequence of squares

a) Draw the sequence of equilateral triangles with sides 1cm, 2cm, 3cm $\cdots$

b) Write the sequence of the perimetres

c) What is the length of the side of the triangle having perimetre just below 10

d) What is the length of the side of the triangle having perimetre just below 100?

Answers

a) Do yourself

b) $3, 6, 9 \cdots$

c) 3cm

d) 33cm

5) Write the sequence of remainders obtained by dividing the numbers from 1 to 10 by 3.

a) What is the sum of the remainders .

b) Write the sequence of remainders obtained by dividing the numbers from 1 to 10 by 4.

c) What is the sum of the remainders obtained by dividing the counting numbers from 1 to 100 by 3

Answers

a) $1, 2, 0, 1, 2, 0, 1, 2, 0, 1$. Sum $= 10$

b) $1, 2, 3, 0, 1, 2, 3, 0, 1, 2$, sum $= 15$

c) $1, 2, 0, 1, 2, 0 \cdots$.
Sum $= 33 \times 3 + 1 = 100$

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