Holiday Assignments

English Junior Section

Mathematics 02 (Number Pattern)   **Grade 8**   **English Medium**

(I)   In each of the following number patterns. Write the next two terms

(a) 4, 8, 12, 16 , ...

(b) 33, 44, 55, 66, ...

(c) 5, 9, 13, 17, ...

(d) 5, 2, -1, -4, ...

(e) 1, 8, 27, 64, ...

(f) 6, 12,18, 24, ...

(g) 3, 12, 21, 30, ...

(h) 1, 4, 9, 16, ...

(i) -10, -7, -4, ...

(j) 1, 7, 13, ...

(II)   (a) Write down the general term of an odd number pattern.

(b) What is the 35th odd number?

(c) Which odd number is 137?

(III)   (a) Write down the general term of the triangular

number pattern.

(b) What is the 19th triangular number?

(c) Which triangular number is 51 x 25?

(IV)   (a) Write down the general term of an even number pattern starting

from 2.

(b) What is the 65th even number?

(c) Which even number is 318 ?

(V)   (a) Write down the general term of the square number pattern.

       (b) What is the 19th square number ?

       (c) Which square number is 625?

(VI) (a) Find the sum of first 100 whole numbers using your

          knowledge in triangular numbers.

       (b) What is the smallest multiple of 4 larger than 200?

       (c) What is the greatest even number less than 500? Which

          term is it in the number pattern of the even number

          starting from 2 ?

(VII) On January, Smith deposited Rs.2000 in her till with the idea that
every month he will deposit Rs.200 more than the amount he did in
the previous month

       (a) Write the amount of money Smith deposited in the first three
months in respective order.

       (b) Find the amount of money deposited on the 10th month

       (c) In which month does Smith deposited Rs.3000

(VIII) What is the sum of the integers from 1 to 50 ?

(IX) Show that the sum of the 19th and 20th terms of the triangular
number pattern is equal to the 20th term of the square number
pattern which starts from 1.