



Provincial Department of Education Sabaragamuwa
Week School
2nd Term- Review Exercise- 4

Subject - Mathematics

Week - 32

Mathematics - 10

Prepared by-A.W.A.Godagama
(Ke/Dehi/Waharaka Maha Vidyalaya)

1. (a) A table to sketch the graph of the function $y = x^2 - 3$ is given below.

x	-3	-2	-1	0	1	2	3
Y	6	1	-3	-2	1	6

- I. Find the value of y when $x = -1$
- II. Sketch the graph of the above function according to a suitable scale on a graph paper.
- III. Write down the coordinates of the turning point by using the graph.
- IV. Find the roots of quadratic equation $x^2 - 3 = 0$ using the graph.

(b) Find the equation of the straight line goes through the points (0,2) and (2,8).

2. (a) If $\frac{4}{a+1} = 2 - \frac{3}{a}$ is given, show that $2a^2 - 5a - 3 = 0$

(b) By solving the equation $2a^2 - 5a - 3 = 0$, show that a can take two values.

(3)

(a) The length, breadth and height of a cuboid shaped tank which is constructed in an oil distribution center are 3m, 2m and 1.5m respectively. If oil is distributed at the rate of 300 litres per minute, find the time that is taken to distribute half of the tank?

(b) Answer the following questions using the table.

Distance (m)	20	40	60	80	100
Time (s)	10	20	30	40	50

I) Sketch a distance time graph related to the above motion.

II) Find the gradient of the graph.

III) Find the distance that is traveled in 10 minutes at the above speed.

IV) Find the time that is taken to travel 0.5 km at the above speed.