නාලන්දා විද්‍යාලය, කොළඹ 10 Nalanda Colllege,Colombo 10 නාලන්දා විද්‍යාලය, කොළඹ 10 Nalanda Colllege,Colombo 10 නාලන්දා විද්‍යාලය, කොළඹ 10 Nalanda

Nalanda College – Colombo 10
3rd Term Test
Mathematics – 2020
Grade - 8

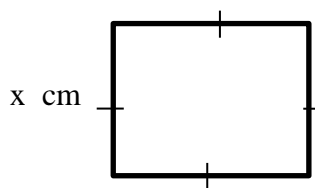Time – 01 hours

15 – Equations and Formulae.

(1) Construct an equation to respresent the information given in the statements.

    (i) When 5 is added to the number represented by y , the value is 10.

    (ii) When 11 is substracted from the number represented by x, the value obtained is 22.

    (iii) The price of a pencil is l rupees. Price of a pen is m rupees. 100 rupees was needed to buy 2 pencils and 5 pens.

    (iv) When 10 is substracted from 3 times a certain number, the value obtained is 80.

    (v) Due to the price of a 1 kg sugar increasing 13 rupees, its price is now 115 rupees.

(2) Solve each of the following equations.

    (i) $x + 5 = 11$ **(ii)** $x - 8 = 10$

    (iii) $2x = 24$ **(iv)** $5m = 65$

    (v) $3x + 2 = 20$ **(vi)** $7x - 3 = 46$

    (vii) $20 + x = 12$ **(viii)** $12 + 5x = 2$

    (ix) $4m - 4 = 16$ **(x)** $11y + 1 = 122$

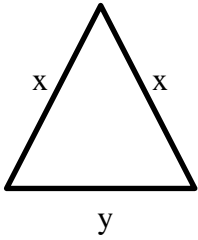**(3)** Building formulae for following statements

    (i) The length of a side of a square is x cm and the perimeter of the square is l cm.

x cm

    (ii) Mass of a box is a and mass of a packet of biscuits is b . Total mass is A.

    (iii) Price of a pen is b rupees. When you give l rupees to buy a pen, P balance is M rupees.

(4)

(i) If the perimeter of the given triangle is P , develop a formula for P.

(ii) Find the value of P when x = 10 cm and y = 15 cm.

(5) If the area of a square lamina of side length x units is A square units , a formula for A , in terms of x is $A = x^2$. Find the value of A when x = 8 cm.