

**Subject – Mathematics****August 2<sup>nd</sup> week**

01. Consider the number pattern 5,8,11,..... Which term is equal to 50?

02. Fill in the blanks.  $\frac{10111}{\text{two}} - \frac{101}{\text{two}} = \left[ \frac{\quad}{\text{two}} \right]$

03. Kamal gives  $\frac{1}{5}$  of his money to Nimal. Nimal pays Kamal Rs.2000 with interest. Kamal says that it is double the amount he gave to Nimal. How much money does Kamal have now?

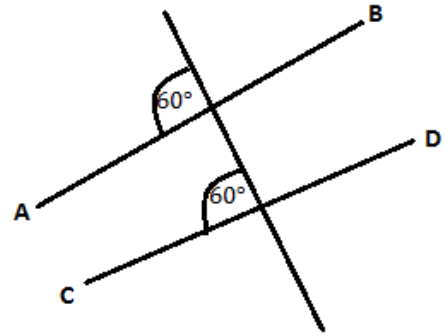
04. If a broker takes a commission of 2% of the value of the land on sale, what is the commission received by the broker on a 40 perch land which is Rs.60000 per perch?

05. Expand and simplify.  $(x + 4)^2$

06. Factorize.  $x^2 - 4$

07. Expand and simplify.  $(x - 2)^2$

08. Are the lines AB and CD parallel? Give reasons.



09. A fish tank 2m length, 1m width and  $\frac{1}{2}$  m height is filled with water at a height of  $\frac{3}{4}$  m. find the water capacity.

10. Harshani who has gone to the US for her education is sent Rs.30,000 a month by her parents. When the US dollar is 200 rupees, how much money does she receive in US dollars?

11. Show a diagram of how the value of  $\sqrt{6.25}$  is obtained from a scientific calculator.

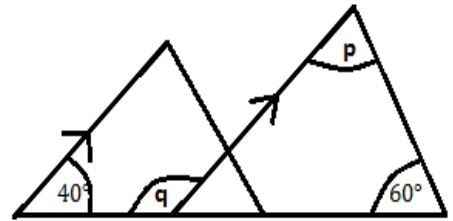
12. If  $625 = 5^x = \left(\frac{1}{5}\right)^y$ , find the values of x and y.

13. Round off the value 0.109345 to the nearest third decimal place.

14. Construct an angle  $120^\circ$  using the pair of compasses.

15. If  $x + y = 5$  and  $x - y = 3$ , find the values of x and y.

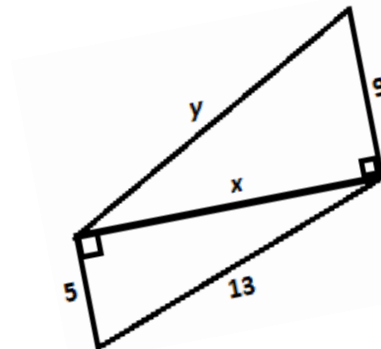
16. Find the values of  $p$  and  $q$ .



17. Make  $r_2$  the subject in the formula  $R = 3(r_2 + r_1)$ . If  $R=6$  and  $r_1 = -3$ , find the values of  $r_2$ .

18. Find the arc length and area of a semicircle of diameter 21cm.

19. Find the values of  $x$  and  $y$ .



20. Draw a straight line graph passing through the points  $(1, 3)$  and  $(3, 7)$ . Find the gradient and intercept of the graph.