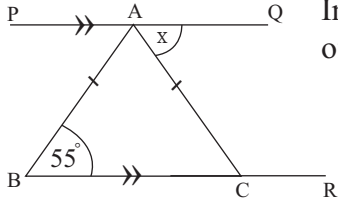


PART A

Answer all the questions on the paper itself

01. It takes 3 men 8 days to paint a house. How many days are required to complete the half of this work by 6 men

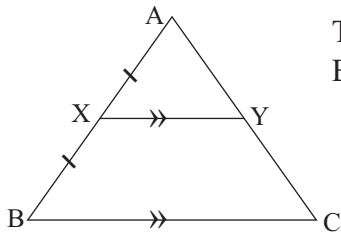
02. In the triangle ABC, $AB = AC$, $BR \parallel PQ$ and $\angle ABC = 55^\circ$, Find the value of x ,



03. Solve, $\frac{1}{3X} + \frac{2}{X} = \frac{7}{12}$

04. The assessed annual value of a property is Rs. 60 000. If the relevant provincial council institution charges 8% of the value of the property as rates, find the rates that have to be paid for a quarter.

05. The perimeter of ABC triangle is 24cm. x is the mid point of AB and $BC \parallel XY$. Find the perimeter of AXY triangle.



06. The least common multiple of the two algebraic expressions is $12x^2y^3$. If one of the expressions is $4x^2y$, select the other expression from the following expressions.

(i) $3xy^2$

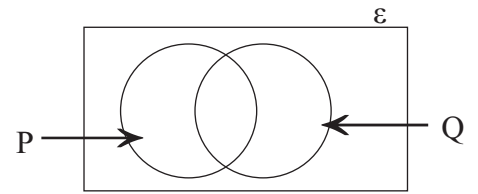
(ii) $6x^2y$

(iii) $3x^2y^3$

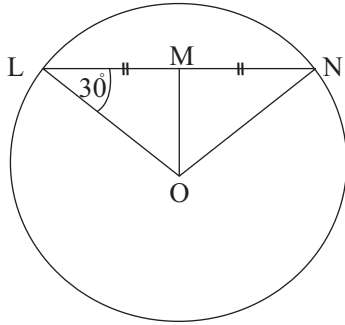
(iv) $8x^2y$

07. The mean of the producing rice in a month of the rice factory is 475 metric tons and the assumed mean is 425t. Find the mean of the deviations of this factory.

08. Shade the region $P' \cap Q$ on the venn diagram given below.



09.



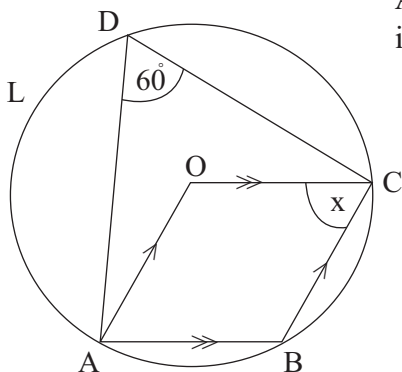
M is the mid point of the chord LN of the circle centre O. If $\angle LOM = 30^\circ$, Find the value of $\angle LON$

10. Write $10^{1.3010} = 20$ in logarithmic form

11. Solve, $\frac{3x^2 + 12x}{5y} \times \frac{10y^2}{x + 4}$

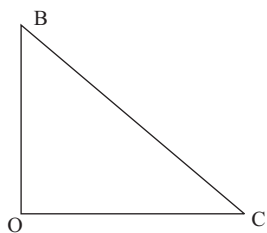
12. Factorize, $4x^2 - 9y^2$

13.



A, B, C and D are points on the circle centre O. According to the information given in the figure, find the value of x

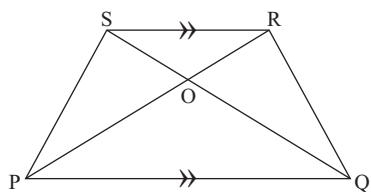
14.



"An angle of depression of C from B is 55° " Represent this information in the figure given.

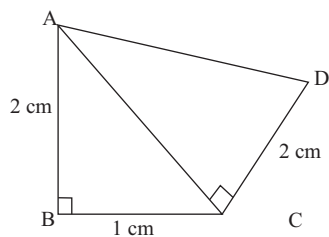
15. M and N are two independent events. If $P(M) = \frac{1}{3}$ and $P(M \cap N) = \frac{1}{5}$ find $P(N)$

16.



The area of the triangle PQS is 31cm^2 and the area of the triangle POQ is 27cm^2 . Find the area of the triangle ROQ

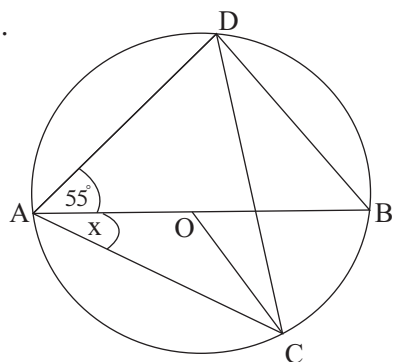
17.



Find the length of AD,

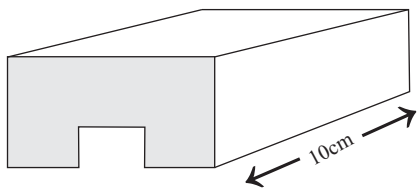
18. Write entire surd $\sqrt{72}$ as a surd

19.



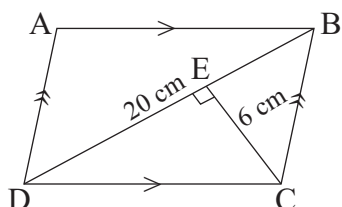
AB is a diameter of the circle with centre O. $\angle OCD = 15^\circ$
Find the value of x using this information

20.



If the area of the shaded region is 20.5 cm^2 , find the volume of it.

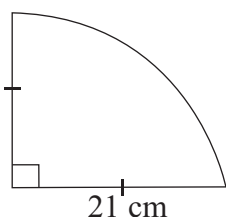
21.



In ABCD parallelogram $BD \perp EC$. $BD = 20 \text{ cm}$, $CE = 6 \text{ cm}$
Find the area of the parallelogram

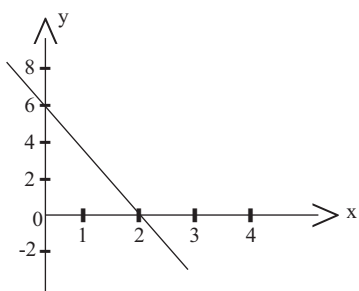
22. If the area of a rectangle of length $3x$ and breadth x is 12 cm^2 . Find the value of x ,

23.



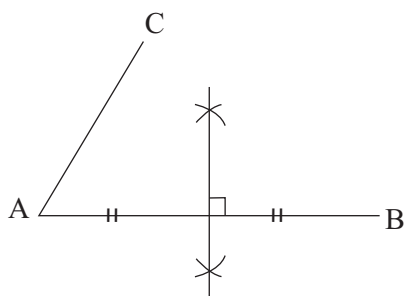
Find the circumference of the base of the cone that can be made by using this sector

24.



Find,
(i) gradient
(ii) intercept of the straight line given in the graph

25.



An incomplete sketch to find a point which is equidistant to the points A and B and equidistant from the lines AB and AC is given below. By completing the sketch, Find that point and mark it on the sketch

PART B

Answer all the questions.

01. From the capacity of computer hard disk $\frac{1}{7}$ separates for drive C and $\frac{1}{4}$ separates for drive D $\frac{5}{17}$ of remaining capacity is used for drive C

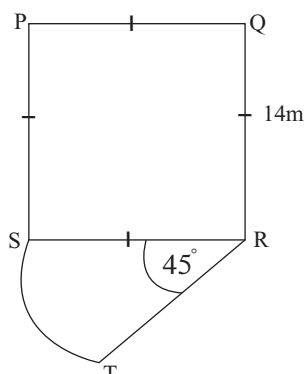
(i). Find the capacity separated for drives C and D as a fraction of total capacity. (2 marks)

(ii). Find the capacity separated for drive E a fraction of total capacity. (3 marks)

(iii). If 45GB is separated for the drive E find the capacity of the hard disk (3 marks)

(iv). If $\frac{1}{3}$ of drive D is stored by data, Find that amount in GB (2 marks)

02.



The given figure is a sketch of a garden consisting of square shape flower bed PQRS and a sector of thirivana stones bed RST

(i) Find the radius of the sector RST (1 marks)

(ii) Find the arc length ST of the garden (2 marks)

(iii) Find the total area of the garden (4 marks)

(iv) If the thirivana bed is rearranged as a rectangular thirivana bed such as its area does not change and by taking SR as one of its boundary and draw a sketch in the same figure with measurement. (3 marks)

03.Saman gave exactly half of Rs. 100 000 as a loan at a compound interest rate of 5%

(i).Find the interest received at the end of the first year. (2 marks)

(ii).Find the total interest obtained at the end of the second year. (3 marks)

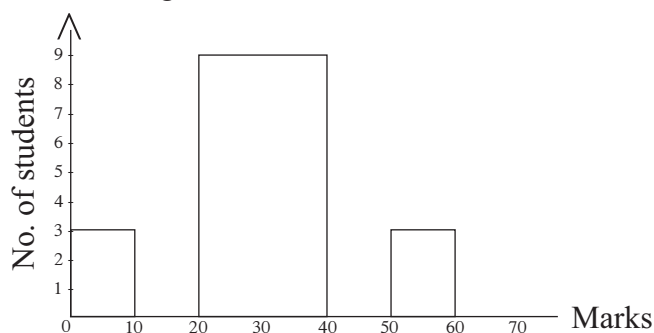
He invests the remaining half in a company to buy shares at the market price Rs. 50. The company pays Rs. 4 per share as annual dividend.

(iii)Find the annual dividend income he received (3 marks)

(iv)Show that giving reasons which institute gives the more profit at the end of 2 years. (2 marks)

04.Marks obtained for Mathematics by a group of students is given below.

Marks	No. of students
0 - 10
10 - 20	6
20 - 40
40 - 50	7
50 - 60



(i).Find in the blanks in the table (3 marks)

(ii).Complete the histogram (2 marks)

(iii)Draw the frequency polygon using the histogram (3 marks)

(iv)Find the total number of students in the class (2 marks)

05.a) In a bag, there are 3 red balls and 2 yellow balls. Raveena takes a ball randomly and colour is noted. By replacing it she takes an another ball and colour is noted.

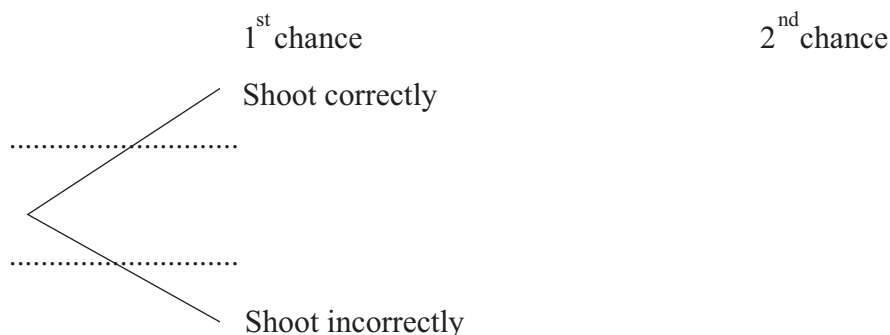
(i).Show the sample space of the above experiment in the grid given below (1 marks)

2nd taken						
Y ₂						
Y ₁						
R ₃						
R ₂						
R ₁						
	R ₁	R ₂	R ₃	Y ₁	Y ₂	1st taken

(ii).In the grid, encircle the event 'the two balls taken out being yellow and write its probability (3 marks)

b) A netball player has two chances for shooting the ball. The probability of shooting correctly in 1st chance is $\frac{5}{7}$. If only she unable to shoot correctly in 1st chance. The 2nd chance is given. Then the probability of shooting the ball correctly is $\frac{3}{5}$

(i).Complete the tree diagram given below by indicating the corresponding probabilities. (2 marks)



(ii).Extend the tree diagram given above to represent the 2nd chance of shooting (2 marks)

(iii)Find the probability of shooting incorrectly in the two chances (2 marks)