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 மேல் மாகாணக் கல்வித் திணைக்களம்
 Department Of Education – Western Province
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පළමු වාර ඇගයීම
 முதலாம் தவணைமதிப்பீடு - 2019
 First Term Evaluation

ශ්‍රේණිය } 11
 தரம் }
 Grade }

විෂය }
 பாடம் } Mathematics
 Subject }

පත්‍රය } I
 வினாத்தாள் }
 Paper }

කාලය } Two Hours
 காலம் }
 Time }

Name :-.....

Index Number :-

.....

Signature of Invigilator

Important:

- This paper consist of 8 pages
- Write your **index no** correctly in the appropriate place on the **page one** and **page three**.
- Answer all questions **on this paper itself**.
- Use the space provided under each question for working and writing the answer.
- It is necessary to write relevant steps and correct units.
- Marks will be awarded follows :
 02 marks each for questions 1 – 25 in part A
 10 marks each for questions in part B.

For marking examiner's use only		
Part	Question number	Marks
A	1 – 25	
B	1	
	2	
	3	
	4	
	5	
Total		

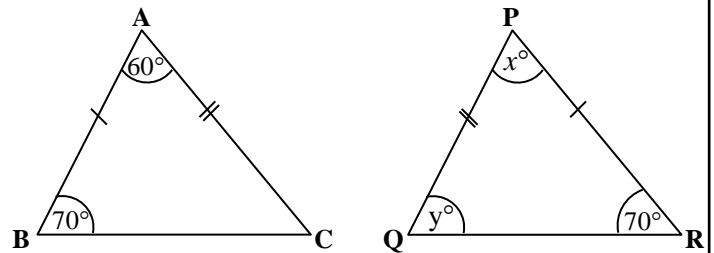
Part A**Answer all the questions on this paper itself.**

01. When an item worth Rs. 1000 is imported 6% of duty is charged. Calculate the duty.

02. Add. $\frac{1}{3x} + \frac{1}{x}$

03. Express in index form. $\log_5 125 = 3$

04. In the given figure, the triangles ABC and PQR are congruent. According to the given information, Find the values of x and y .



05. A bus travels at a uniform speed of 16 ms^{-1} . Find the distance it travel in 3 seconds.

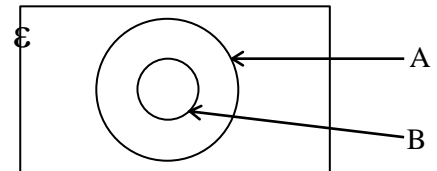
06. Find the least common multiple of the expressions xy and $2x^2$.

07. Kamal gave Rs. 64 000 to monthly simple interest of 2%. Calculate the interest Kamal received after 5 months.

08. Square root of a number x to the first approximation is 3.1. What is the nearest perfect square number to x ?

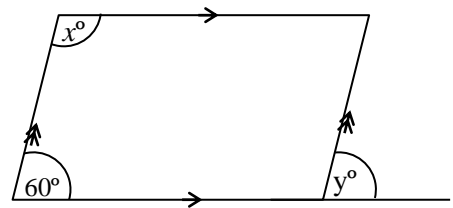
09. Find the volume of a right circular cylinder with the radius 7cm and the height 20cm. (The volume of a cylinder with the radius r and the height h is $\pi r^2 h$)

10. Shade the region $A \cap B$ in the given Venn diagram.



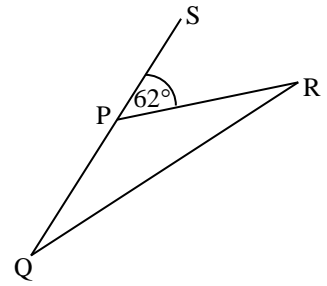
11. Find the factors. $20 + x - x^2$

12. According to the information given in the figure, find the value of $x + y$.



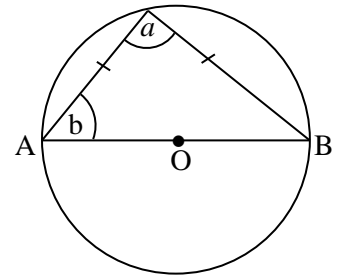
13. Solve. $1 + \frac{3}{x} = 2$

14. In the triangle PQR, $PQ = PR$. QP side is produced to S.
If $\widehat{RPS} = 62^\circ$, find the magnitude of \widehat{PQR} .

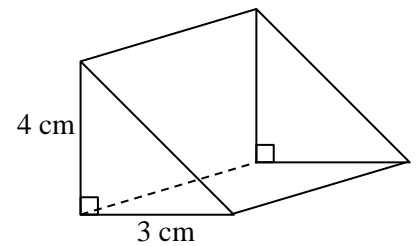


15. Write down the equation of the straight line with the gradient 2 and the intercept (-3).

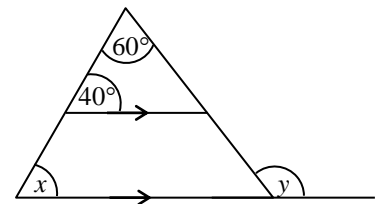
16. In the circle with the centre O, AB is a diameter.
According to the given information find the values of a and b .



17. If the volume of the prism is 60cm^3 , find the length of it.



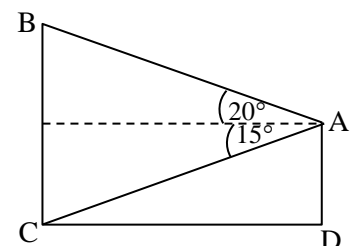
18. According to the information given in the figure, find the values of x and y .



19. Solve the inequality $x + 3 \geq 5$ and write the smallest whole number that x can take.

20. According to the measurements given in the figure, write the...

- i. Angle of depression of A from B.
- ii. Angle of elevation of A from C.

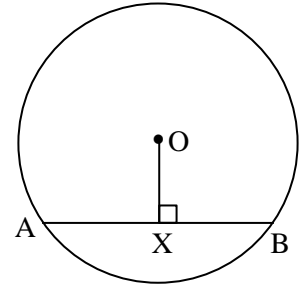


21. Information given below represents the weight of some students to the nearest kilogram.

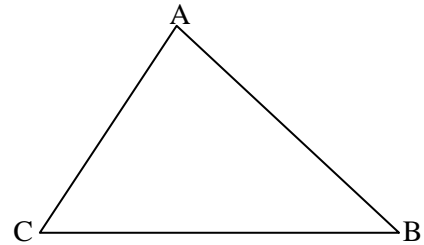
32 , 28 , 40 , 33 , 27

How many students are there who weigh more than the mean weight?

22. In the circle with the centre O, radius is 5cm and the length of AB chord is 6cm. Find OX length.



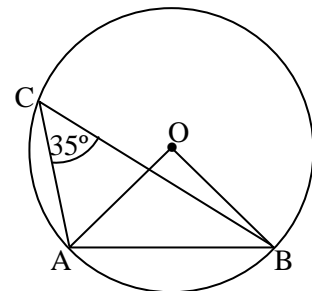
23. In the given triangle ABC, draw a sketch to represent the locus of a moving point which passes through the point A, parallel to the side BC.



24. For the Sample space $S = \{ 1, 2, 3, 4, 5, 6, 7, 8 \}$

- i. Write down a simple event.
- ii. Write down a composite event.

25. The centre of the given circle is O. According to the given information find the magnitude of the angle $\hat{O}AB$.



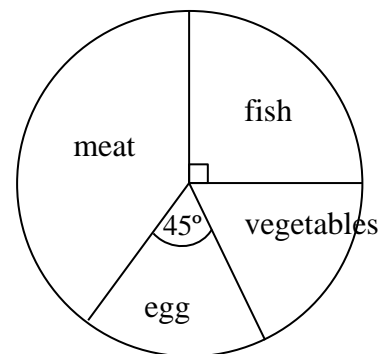
Part B

Answer all the questions on this paper itself.

01. $\frac{5}{8}$ of the capacity of a certain oil tank is filled with oil. Due to a leak in its tap, $\frac{1}{5}$ of the oil in it got wasted during a day.
- (i) What fraction of the whole tank was empty at the beginning?
- (ii) What fraction of the oil in the whole tank got wasted during a day?
- (iii) At the end of the day, if 100 liters of oil was remaining in the tank, what is the capacity of the tank?
- (iv) If one liter of oil costs Rs. 150, find the value of the oil that got wasted.

02. The information collected about the lunch preferred by 120 people who were participated for a certain gathering is given in the following incomplete table and the pie chart.

Type of food	No of people
meat	50
fish
egg
vegetable



- (i) Fill in the blanks in the table.
- (ii) What is the angle of the centre of the sector which represent the people who ate meat?
- (iii) If all the people who preferred egg ate vegetables and all the people who preferred fish ate meat, find the ratio between the number of people who ate vegetables and the number of people who ate meat.

03. A person who decided to travel from his car, went to a petrol shed and pumped 60 liters of petrol into his car within 60 seconds through a pump before starting his journey.

(i) Find the rate at which petrol flows out of the pump.

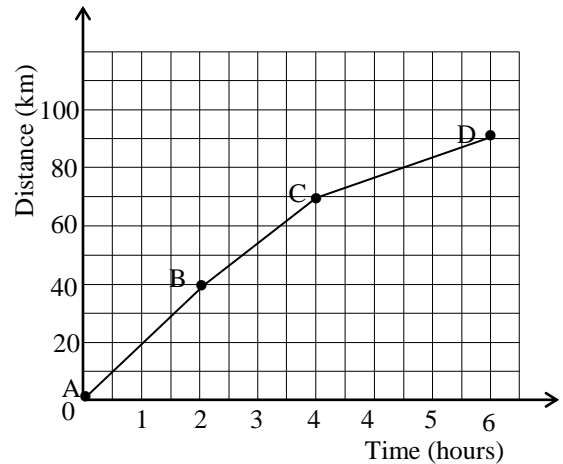
The distance time graph of his motion is given below.

(ii) Find the total distance of his journey.

(iii) Find the average speed of the journey.

(iv) Find the speed of the BC part of his journey.

(v) If he maintains the speed at BC part throughout the journey, find the time takes for the whole journey.



04. (a) If Amitha paid Rs. 7 200 of value added tax, when buying a refrigerator worth Rs. 72 000,

(i) What is the value of the refrigerator after paying the tax?

(ii) What is the percentage of tax charged?

(b) First Rs. 500 000 of a person's annual income is tax free. A tax of 4% is charged for the next Rs. 500 000 and a tax of 8% is charged for the balanced income.

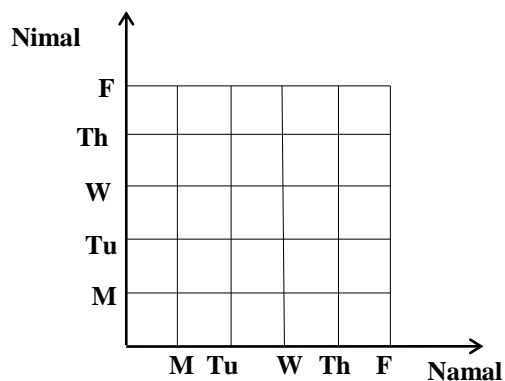
His annual income is Rs.1 075 000.

(i) Find the tax to be paid as 4% .

(ii) Find the tax to be paid as 8% .

(iii) Find the total income tax to be paid.

05. (a) Namal and Nimal go to the public library once every weekday. Given grid shows all the possible ways that they can go to the library during the following week.



- (i) Represent the sample space of the event, Nimal and Namal going to the library during weekdays.
- (ii) Find the probability that Nimal going to the library on Wednesday.
- (iii) Find the probability that both of them going to the library on the same day.
- (iv) Find the probability that at least one of them going to the library on Wednesday.
- (v) Find the probability that Namal going to the library before Nimal.

