



கரம்

மல்லாகம்.

கல்வி நிலையம்.
கொக்குவில்.

Mathematics Examination - 2017, August.

Grade - 08

Mathematics.

Two hours.

Part - I

(Answer all the questions.)

01. Find the value of $\sqrt{242 \times 18}$

02. Find the complementary and supplementary angles of $(a - 10)^\circ$

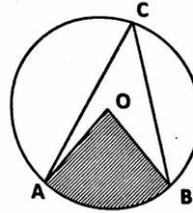
03. The Royal softball team played 80 games and won 56 of them. What percentage of the game did they lose?(None of the matches could be draw)

04. If $2874 \times 23 = 66102$, then find the value of 28.74×0.23

05. Remove the brackets and simplify: $3(m + 2) - 2(m - 3) + 2$

06. In the given circle O is the centre.

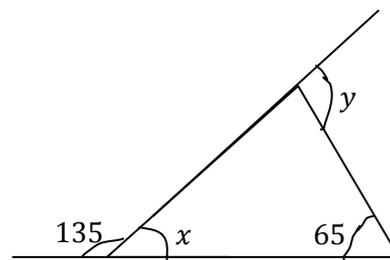
i) Name a chord.



ii) Name the shaded region.

07. Simplify $4\frac{4}{5} \div 5\frac{1}{3}$

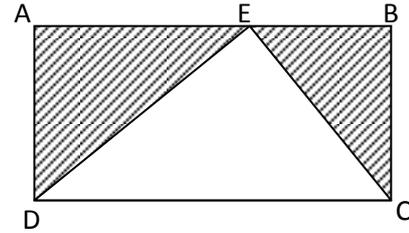
08. Find the value of x and y



09. Factorize: $12ax^2 - 18a^2xy$

10. Write the number of edges and vertices of a pentagon base pyramid.

11. In rectangle ABCD, E is a point on the side AB. $AB = 10\text{cm}$, $BC = 7\text{cm}$ find the area of the shaded part.



12. If the average of $(y + 7)$, $(2y - 9)$ and $(8y + 6)$ is 27, find the value of y .

13. i) What is the time difference between two consecutive time zone?

ii) Find the time in green which, when the time in Sri Lanka is 21:30 (Sri Lanka is situated at $+5\frac{1}{2}$ time zone)

14. Mark each correct statement with \checkmark and each incorrect statement with \times

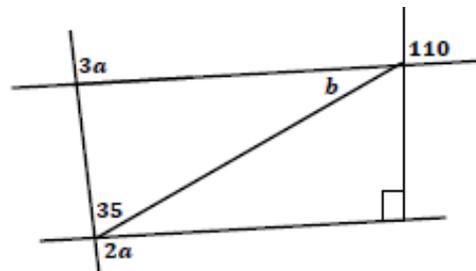
All odd numbers are prime numbers.	
The region bounded by two radii and an arc is called a Segment.	
Parallelogram has 2 symmetry axis.	

15. If $m = (-3)$ and $n = 2$, find the value of $2m^2 - 3n^2$

16. Express $\frac{2}{3}$ of a day in minutes.

17. If the sum of three positive integers is 10, and their multiples is 20. Find the numbers..

18. Find the values of a and b



19. Find the value of $2016 - (-1)^{2017}$

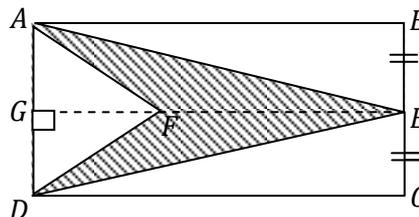
20. Find the value of $\frac{1010}{1000} \times 550 + \frac{1010}{1000} \times 450$, using your knowledge about factors.

(20 × 2 = 40 Marks.)

Part - II
(Answer all the questions.)

01. If ABCD is a rectangle, $AD = 2x$ and AB is three units less than thrice of AD

i) Find the length of AB in term x .



ii) If $FG = \frac{1}{3}AB$, Show that length of GF is $(2x - 1)$

iii) Find the area of $\triangle AFD$ in term x .

iv) Find the area of $\triangle ABE$ in term x .

v) Show that area of shaded region is $4x^2 - 2x$.

vi) Calculate the area of shaded region when $x = 3cm$.

(12 Marks.)

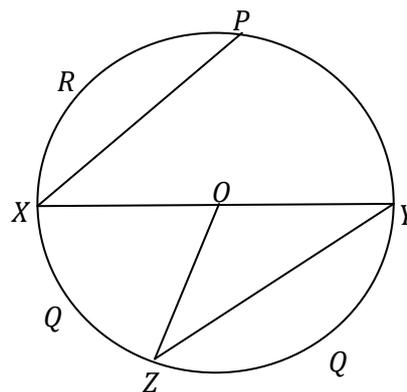
02. In the given circle $OX=OY=OZ$

i) Write the suitable letters for the following.

a) Centre.

b) Diameter.

c) Chord.



- ii) Name the section PRX.
- iii) Name the region bounded by the section PRX and XP.
- iv) What is the angle formed at the centre by the arc XQZ.
- v) Name the region bounded by OZ,OR and arc YQZ.
- vi) If $XY = 20 \text{ cm}$, find the length of OZ.
- vii) Find the area of ΔXZY when $X\hat{O}Z = 90^\circ$

(12 Marks.)

- 03.(a) i) Find the capacity in l of a cuboid shaped tank of length 50cm, breadth 40cm and height 20 cm.
- ii) If $\frac{1}{3}$ portion of the above tank is filled with water, find the quantity of water in liter needed to completely fill the tank.
- iii) Find the capacity in liter of a cube of which has the area of the base is 400 cm^2 .
- iv) To full fill the tank said in part(i), how many times the water should be poured using the container said in part(iii)

(b) 35% of the students in a class are boys. If the number of girls in the class is 26,

- i) What is the percentage of girls?

- ii) What is the number of boys in the class?

- iii) What is the number of students in the class?

(12 Marks.)

04.(a) 20 rod pieces have been cut in the way of 5cm, 10cm, 15cm..... respectively for building construction.

- i) Name the series that the pieces have been cut accordingly.

- ii) Find the general term.

- iii) Find the length of largest rod.

(b) i) Simplify: $(-5) \times (-3) + (-10)$

ii) Solve, Using number line: $(-6) - (+3)$

iii) Simplify: $\frac{(+4) \times (-3) \times (-2)}{(-6) \times (-1)}$

iv) Factorize: $4a^2 + 10ab - 6a$

(12 Marks.)

05. (a) Ram started a business investing Rs. 45000 at start of a year. After 3 month Raku joined by investing Rs.55000. After another three months Ravi joined by investing Rs. 60000. There profit after one year is Rs 139500. They decide to share the profit according to the time and the investment.

i) Give the simplest ratio of the profit distribution among three of them.

ii) According to that calculate the amount they get separately.

(b) If ram divide his money among his wife, son and daughter in the ratio $wife: son = 3:4$ and $son: daughter = 2:1$,

i) Find the simplest ratio between $wife: son: daughter$.

ii) Calculate the amount ram's wife, son and daughter get separately.

(c) The ratio between interior angles of a quadrilateral is 2:1:3:3, Find the each interior angle of that quadrilateral.

(12 Marks.)

Ra. Sin Thujan.