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Second Term Test - 2025

32 S I

Grade 08

Mathematics

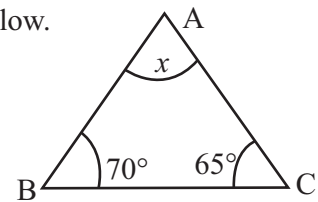
2 Hours

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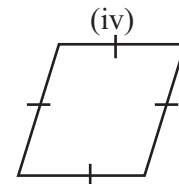
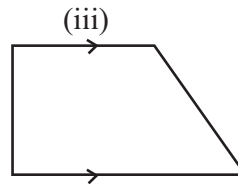
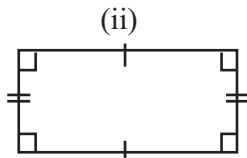
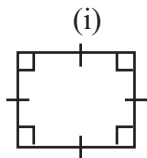
Part - I

- Answer all questions of part I on question paper itself and attached with answer script of part II.
- Each question carries 02 marks.

01. Find the value of x according to the information given in the figure below.



02. Underline the figure which is not rotational symmetric.



03. Simplify : $10 \times \frac{1}{2}$

04. Underline the set of angles which can be a set of interior angles of a quadrilateral from the set of angles given below.

a) $50^\circ, 80^\circ, 60^\circ, 150^\circ$

c) $120^\circ, 40^\circ, 150^\circ, 50^\circ$

b) $90^\circ, 100^\circ, 70^\circ, 110^\circ$

d) $75^\circ, 105^\circ, 68^\circ, 122^\circ$

05. Fill in the box given by putting the suitable value. $12 : 7 = \square : 35$

06. Solve, $3x + 5 = 11$

07. If 20 apples are distributed among a set of students such that each student receives $\frac{1}{4}$ an apple. How many students receive apples.

08. Write down 75 % as a ratio with the simplest form.

09. Simplify, $10 \div 0.01$

10. The length of a rectangle is equal to twice of its breadth and its perimeter is 24 cm. Find the perimeter of a square such that its side length is equal to the breadth of the rectangle.

11. Find the 12th term of the number pattern such that its terms are the numbers which are obtained by adding successive terms of the following number pattern.

1, 3, 6, 10,,

12. Find the value of $2x^3 - 8$ when $x = -3$.

13. If $A = \{2, 4, 6, 8\}$, Filling in the blanks by putting suitable symbol.

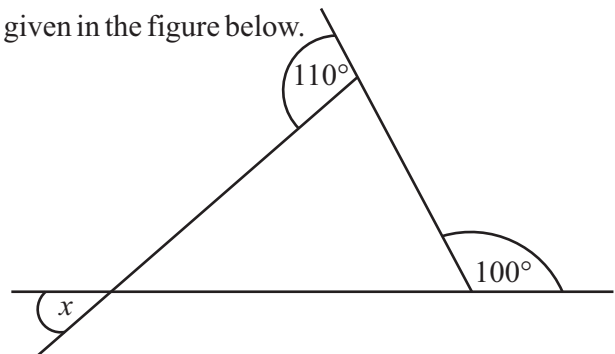
i) $6 \dots\dots\dots A$

ii) $5 \dots\dots\dots A$

14. If $676 = 2^2 \times 13^2$, find the value of $\sqrt{676}$.

15. Write down $12ax - 8x$ as a product of two factors.

16. Find the value of x according to the information given in the figure below.



17. The price of a pen is, Rs. 16 more than the price of a pencil. If the price of a pencil is x . Write down the price of two pens in terms of x .

18. Fill in the blanks. $2080 \text{ kg} = \dots\dots\dots t$ $80 \text{ kg} = \dots\dots\dots t$

19. The magnitudes of exterior angles of quadrilateral are x , 100° , 105° and 80° . Find the value of x .

20. If $A : B = 2 : 5$ and $B : C = 10 : 3$, find $A : B : C$.

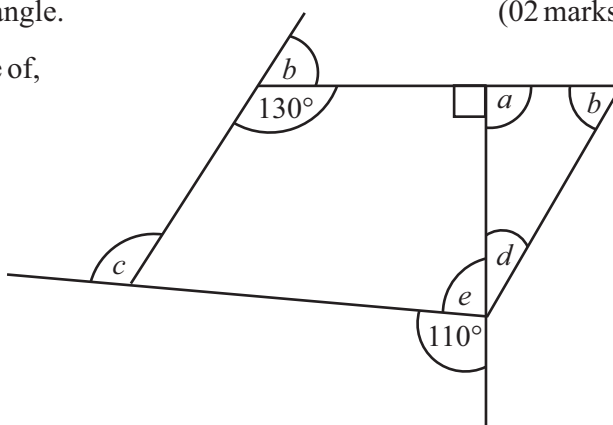
- Answer only 05 questions including 1st questions.

01. (a) Answer according to the activity done related to the lesson of rotational symmetry.

- (i) Draw two shapes used in the activity to identify the rotational symmetry. (02 marks)
- (ii) What is the term used to define the no. of times the shape that coincided on the same shape when it is rotated one round? (02 marks)
- (iii) Write down the no. of axes of symmetry of equilateral triangle. Write down the order of rotational symmetry of equilateral triangle. (02 marks)

(b) According to the figure given find the value of,

- (i) a (01 marks)
- (ii) b (02 marks)
- (iii) d (03 marks)
- (iv) e (02 marks)
- (v) c (02 marks)



(16 Total marks)

02. Sugath started a business by investing Rs. 80 000. After 2 months Kumar joined to business by investing Rs. 100 000. At the end of a year they shared the income according to the amount of investment and the time of investment. At the end of a year, Kumar received Rs. 2 500 more than the income received by Sugath.

- (i) What is the time in months of investment of Sugath at the end of a year? (01 marks)
- (ii) Find the ratio used by them to share the income at the end of a year. (03 marks)
- (iii) What is the income received by Sugath at the end of a year? (03 marks)
- (iv) Write down the income received by Kumar at the end of a year as a percentage of his investment. (03 marks)
- (v) What is the reason for not dividing income of joined businesses only according to the amount of investments? (01 marks)

(11 marks)

03. If $X = \{\text{odd numbers between 0 and 10}\}$

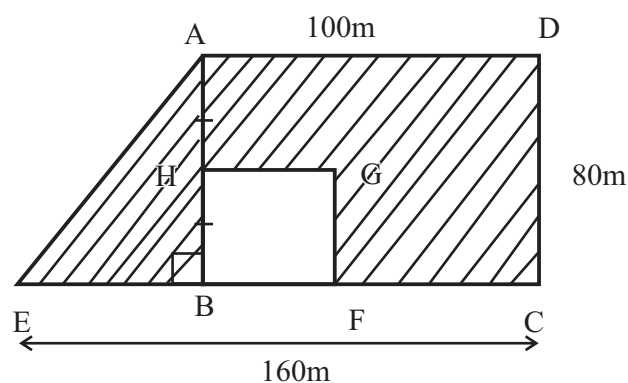
$Y = \{\text{even numbers between 0 and 10}\}$

- (i) List the elements of the sets X and Y separately. (02 marks)
- (ii) Represent the set X in a Venn diagram. (02 marks)

- (iii) Write down $n(X)$ and $n(Y)$ separately. (02 marks)
- (iv) Write down the set of common elements of the sets X and Y. (02 marks)
- (v) What is the type of the set obtained as the answer in part (iv) ?
Write down two examples for the sets belong to that type of sets, (03 marks)
- (11 marks)

04. (a) (i) Simplify, $\frac{1}{3} + 2\frac{3}{4} - 1\frac{5}{6}$ (02 marks)
- (ii) Simplify, 12.8×4.75 (02 marks)
- (b) $\frac{1}{8}$ of stock of coconuts bought by Ijas is sold to a shop and $\frac{3}{5}$ is kept for preparing coconut oil. Remaining number of coconuts is given to his sister.
- (i) How much of fraction of stock of coconuts bought by him is given to his sister ? (02 marks)
- (ii) If the number of coconuts sold by him to the shop is 48. How many coconuts were in the stock of coconuts that he bought ? (02 marks)
- (iii) If he bought a coconut at the price of Rs. 150, Show that the total amount spent by him to buy the stock of coconuts did not exceed Rs. 60 000. (02 marks)
- (11 marks)

05. A figure of a land which contains a rectangular part ABCD and a right angled triangular part ABE is given below. In that rectangular part, there is a square shaped building BFGH and Grasses were grown in the shaded portion of the land.



- (i) What is the base length of the square shaped building BFGH ? (01 marks)
- (ii) If $AE = AD$. Find the perimeter of the land. (03 marks)
- (iii) Find the area of the part ABE. (03 marks)
- (iv) Find area of part of the land that grass had been grown (04 marks)
- (11 marks)

06. The total number of the students in a certain primary school is 240. The number of students in grade 4 of that school is 48 and the number of students in grade 5 is equal to half of the number of students in grade 4.

(i) Write down the number of students in grade 5 as a percentage of the total number of students of that primary school. (03 marks)

(ii) If the number of students in grade 1 is equal to the sum of the number of students in grade 4 and 5. Find the number of students in grade 1 and write down it as a percentage of the total number of students of that primary school. (03 marks)

(iii) The ratio between the number of students in grade 2 and 3 is 9 : 7. Find the number of students in grade 2 and write down it as a percentage of the total number of students of that primary school.

(03 marks)

(iv) It is expected that 25 % of students of grade 5 will pass the exam by overcoming the cutoff mark. Find that number of students. (03 marks)

(11 marks)

07. The age of Piyumi's father is equal to four times of Piyumi's age. After another 8 years her father age will be equal to three of her age. If her present age is t years.

(i) Write down father's present age in terms of t . (02 marks)

(ii) Write down their ages in terms of t after another 8 years separately. (02 marks)

(iii) According to their ages after 8 years, construct an equation in term of t . (03 marks)

(iv) Find the present ages of them by solving that equation. (04 marks)

(11 marks)