

S.1 MATHEMATICS

ANSWER ALL QUESTIONS.

- Plot points $(-1,0), (2,4), (5,4), (8,0)$.
 - Join the points and state the name of the figure drawn.
 - Calculate the area enclosed by the figure in square units.
- A car leaves town A and travels 45km on a bearing of 60° . It then changes course and travels 60km on a bearing of 240° . By means of a scale drawing;
 - find how far the car is from town A.
 - the bearing of the car from town A.
- Using a ruler, pencil and a pair of compasses only;
 - Construct a triangle PQR in which $PQ = 6\text{cm}$, $RQ = 8\text{cm}$ and angle $PQR = 60^\circ$.
 - Inscribe a circle in the triangle and measure its radius and length PR.
 - Find the area of the inscribed circle.
- In a group of 25 men, 10 support Express, 8 support Villa and 10 support neither. How many men support Express and Villa?
- A polygon is divided into 5 triangles by drawing diagonals from one vertex.
 - How many sides does it have?
 - What is the sum of its interior angles?
- Find the volume and surface area of a cylinder whose diameter is 1.4m and height 4.2m ,
If the cylinder is open at one end.
- Express 1225 as a product of its prime factors.
- Express $2.36\dots$ as an improper fraction in its simplest form.
- Find the LCM and HCF of 36, 45 and 60.
- Simplify: $\frac{2}{7}$ of $(1\frac{10}{11} - \frac{9}{22}) \div 1\frac{7}{11}$