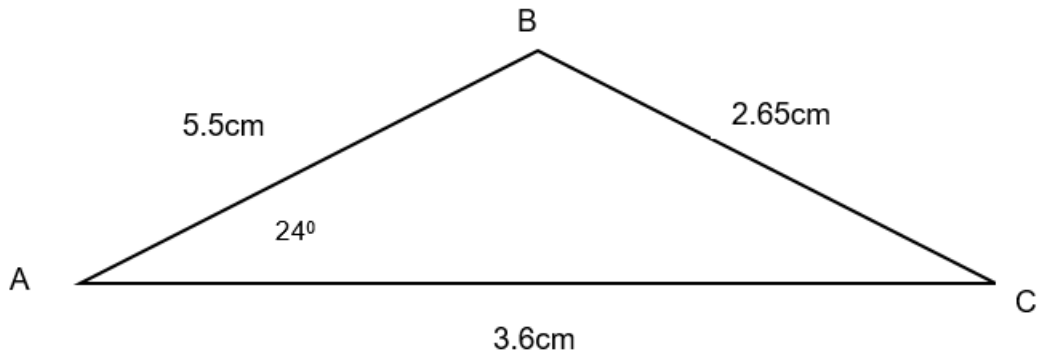
GRADE 10
END - TERM TWO 2026 ASSESSMENT
MATHEMATICS
NAME_____. ADM NO_____

CLASS_____ DATE _____.

INSTRUCTIONS: ANSWE ALL THE QUESTIONS

1. Calculate the area of the triangle shown below. (3 marks)



2. An advertisement board is in the form of an isosceles triangle with perimeter 40m and each of the equal sides are 15m.

(a) Find the area of the board to the nearest square meter. (3 marks)

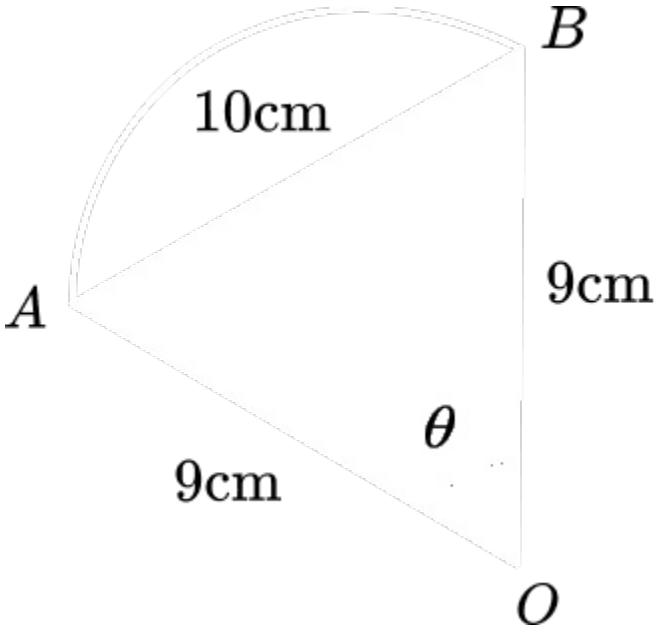
(b) The painting cost Ksh 250 per square meter. Find the cost of painting the board. (2 marks)

3. Use tables of logarithms to evaluate: $\frac{0.0075\,x\,0.8181}{0.00509}$

(3 Marks)

4. B and Y are complementary angles. If sin B = 0.9975, find Y. (3 Marks)

5. Find the value of the angle θ given that AB =10cm, BO = AO = 9cm. (3 marks)



6. Work out: $27^{\frac{2}{3}} x\, 8^{\frac{2}{3}} + 81^{\frac{1}{2}}$ (3 Marks)

7. Find the reciprocal of **38.6** using mathematical tables. (3 marks)

8. The product of ages of Akinyi and Wakesho is 80 more than the product of their ages 4 years ago. If Akinyi is 4 years older than Wakesho, find their current ages. (3 Marks)

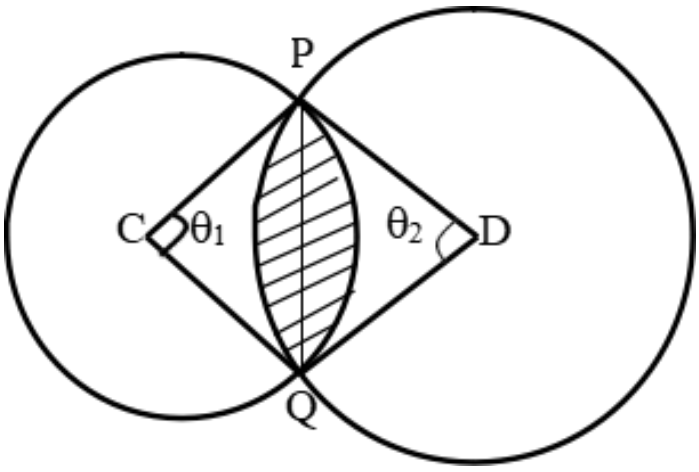
9. The surface area of two similar bottles are $12cm^2$ and $108cm^2$ respectively. If the larger one has a volume of $810cm^3$. Find the volume of the smaller one. (3 marks)

10. Without using mathematical tables or a calculator, simplify: (6 Marks)

(a) $\cos^2 60° - \sin^2 60^0$

(b) $\frac{\sin 45°}{\tan 45°}$

11. The figure below shows two intersecting circles of centers C and D radii 16cm and 20cm respectively. The two circles subtend angles θ_1 and θ_2 at their centers respectively and intersect at P and Q as shown.



Given that the area of triangle PCQ = 80.14cm^2,

Calculate the size of

(i) The angle marked θ_1 (2 Marks)

(ii) The angle marked θ_2 (3 Marks)

12. A triangle of vertices **A'** (-1, -7), **B'** (-1, -5) and **C'** (-5, -5) is an image of the triangle whose vertices are **A** (5, 3), **B** (5, 1) and **C** (9, 1) under a rotation. Find the centre and angle of rotation. (5 marks)

13. Points E(-1,-4), R(-4,-5) and S(-2,-3) are vertices of a triangle, find its image under a reflection in the line y = -x-1. (5 marks)