LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
EDUCATION

VHEMBE DISTRICT

GRADE 8

MATHEMATICS P2

TERM 4 FINAL EXAMINATION

2023 NOVEMBER

MARKS: 60

TIME: 2 HOURS

This question paper consists of 6 pages including the cover page

Instructions:

1. Read the questions carefully before answering.
2. Answer all questions.
3. Write all working statements and give reasons.

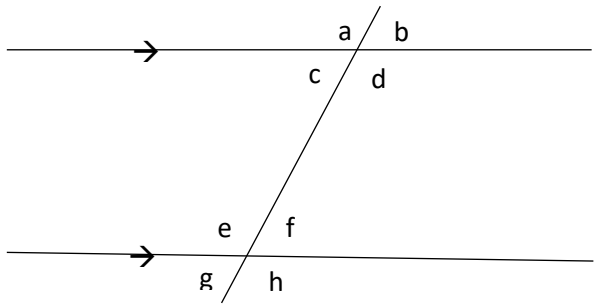
QUESTION 1 [10 MARKS]

Four possible answers are given. Write down the letter of the correct answer.

1.1 The co-interior angles add up to (1)

A : 60^0 B: 90^0 C :360^0 D :â 180^0

1.2 Study the figure below:



Which of the following is a pair of alternate angles (1)

A. ∠a and ∠b B. ∠c and ∠f C. ∠g and ∠h D. ∠d and ∠f

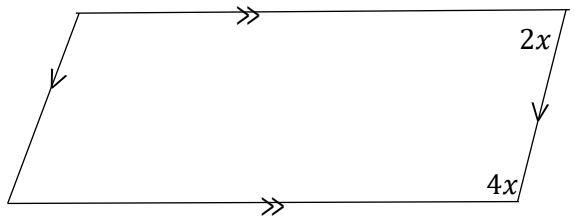
1.3 The three sides of _____ triangle are equal (1)

A. Obtuse angle B. Equilateral C. Scalene D. Right angle

1.4 A quadrilateral with only one pair of opposite sides parallel is: (1)

A. Kite B. Rhombus C. Trapezium D. Square

1.5 ABCD is a parallelogram. Determine the value of x. (1)



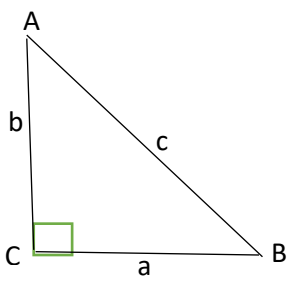
1.6 Sum of angles of a _____ equal to 360^0 (1)

A. Scalene B. Right-angled triangle C. Acute angle D. Quadrilateral

1.7 The theorem of _____ states that in a right-angled triangle, the square of the hypotenuse equals the sum of the square of the other two sides. (1)

A. Triangle B. Quadrilateral C. Mid-point D. Pythagoras

1.8 In the given triangle: (1)



A. $c^2 = b^2 + a^2$ B. $c^2 = b^2 - a^2$ C. $c^2 = a^2 - b^2$ D. $c = b + a$

1.9 The perimeter of a rectangle having length 5cm and breadth 3cm is------ (1)

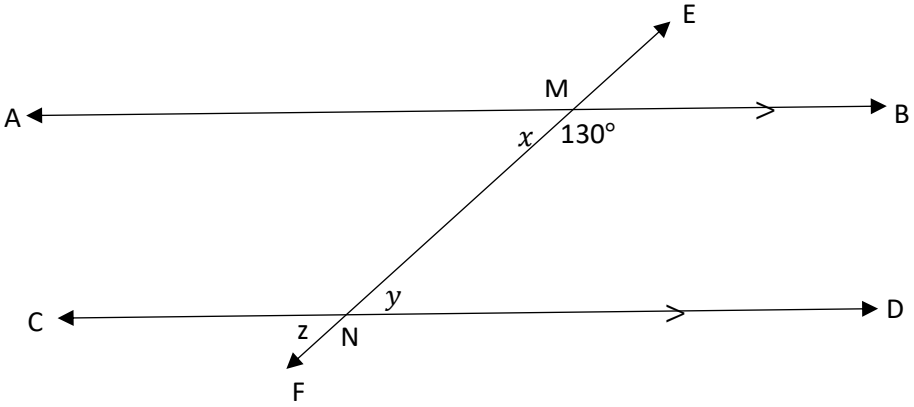
A. 4cm B. 16cm C. 12cm D. 8cm

10. The formula to calculate the area of the circle is-------- (1)

A πr^2 **B. πd** **C. $2\pi r$** **d. πr**

QUESTION 2 [12 MARKS]

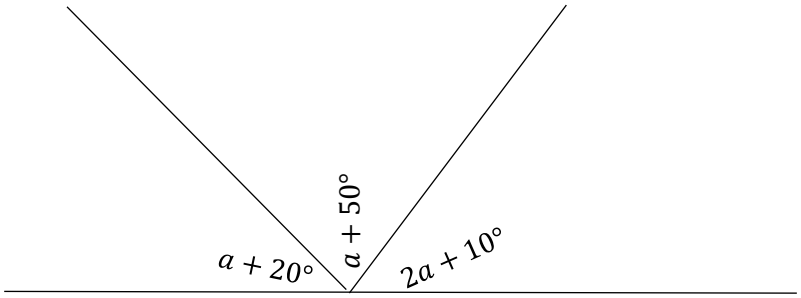
2.1 In the figure AB // CD and $\angle NMB = 130^0$



2.1.1 Calculate with reasons the value of $x, y \; and \; z$ (6)

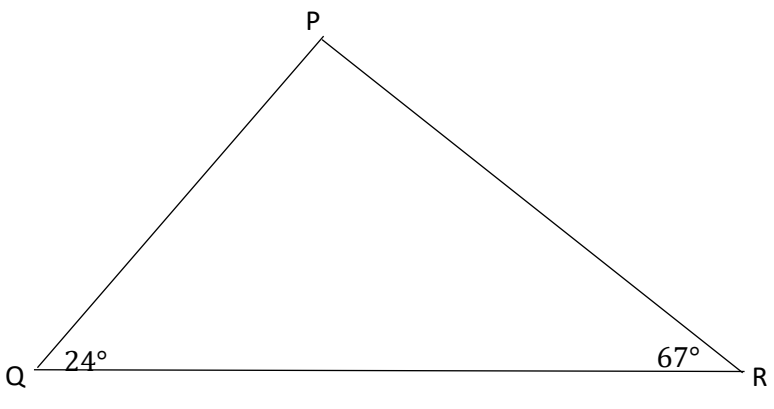
2.1.2 Identify a pair of letters that form corresponding angles (2)

2.2 Study the diagram and determine the value of a (4)

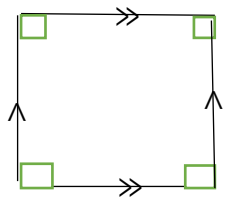
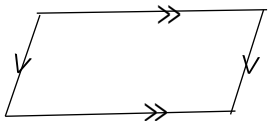


QUESTION 3 [14 MARKS]

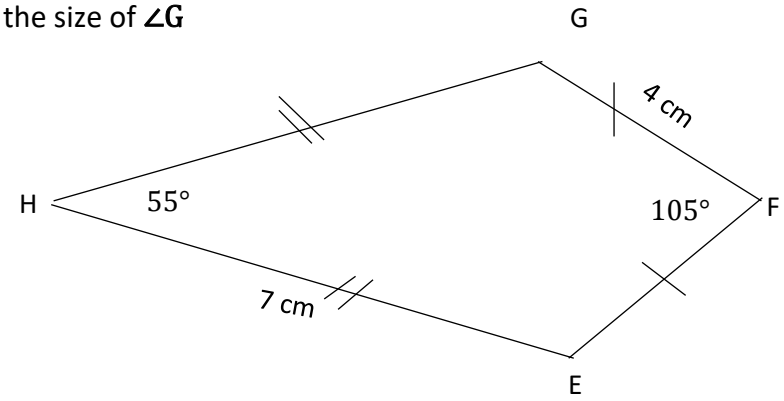
3.1 In Δ PQR below, $\widehat{Q} = 24^0 \; and \; \hat{R} = 67^0$. Calculate the size of $\hat{P}$ (4)



7i3.2 Complete the table below: (6)

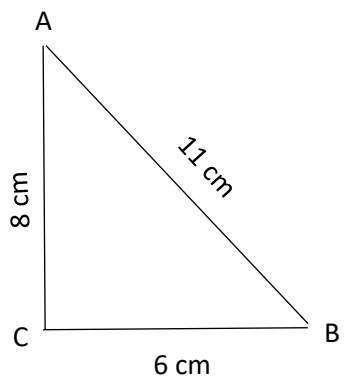
Figure	Type of 2D shape	Sum of interior angle
	3.2.1_____	3.2.2_____
3.2.3_____ 	3.2.4_____	180^0
	3.2.5_____	3.2.6_____

3.3 EFGH is a kite. Use the information provided in the diagram to calculate with reasons the size of $\angle G$

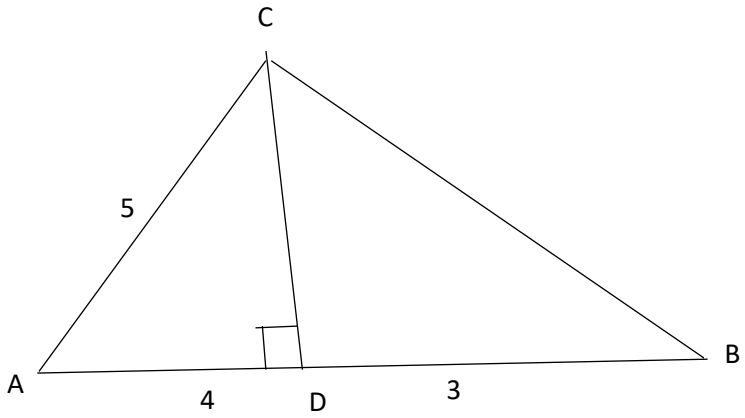


QUESTION 4 [12 MARKS]

4.1 Determine whether the following triangle is a right- angle or not. AB= $11cm$, $AC = 8cm$ *and* $BC = 6cm$ (5)



4.2 In the diagram below AC = 5 units ; AD = 4 units; DB = 3 units and CD ⊥ AB



4.2.1 Identify a side of triangle that represents the hypotenuse in ΔBCD. (2)

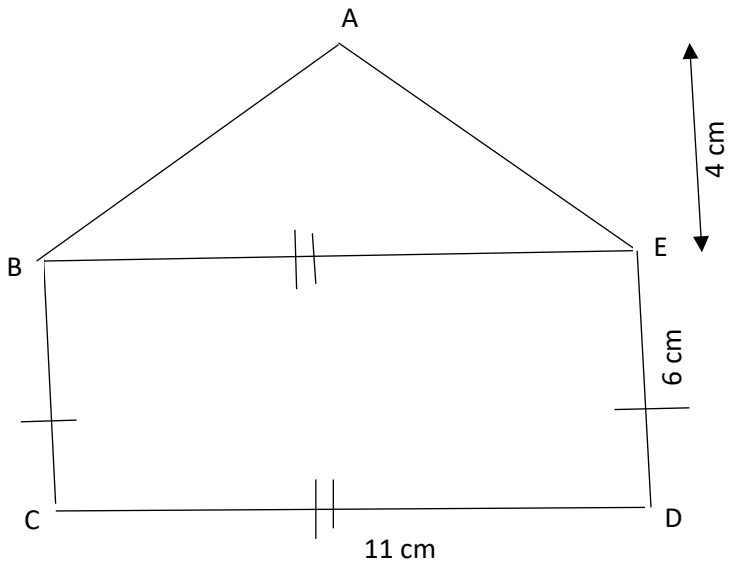
4.2.2 Find with reasons the length of CD
(3)

4.2.2 Find the size of $\hat{B}$, give reasons.
(2)

QUESTION 5 [12 MARKS]

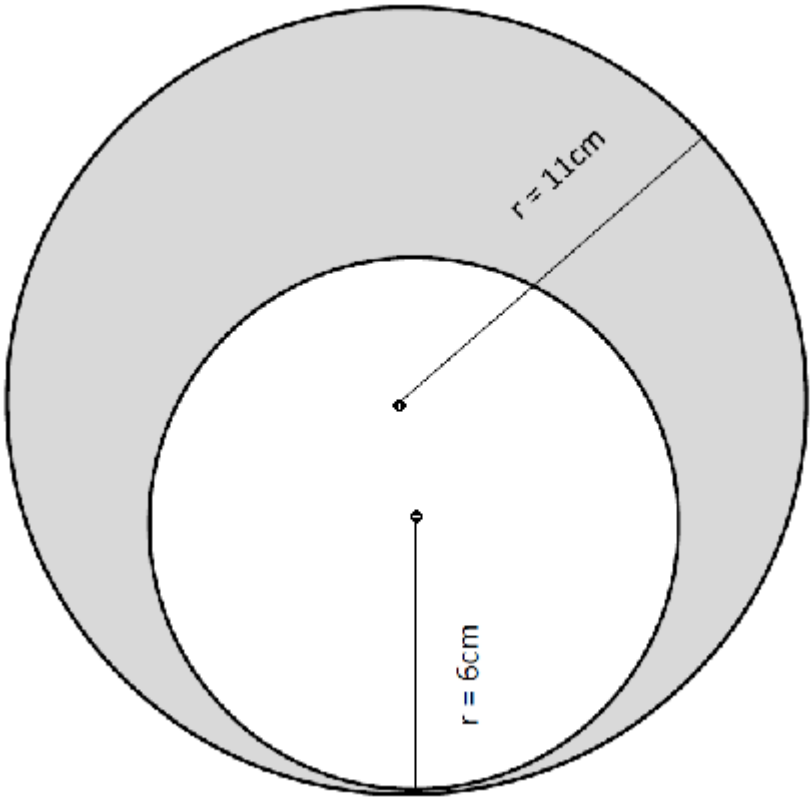
5.1 Calculate the perimeter and area of a square with a length of 3,5cm. (4)

5.2 Find the area of the figure ABCDE below (3)



5.3. In the figure drawn below $r = 11cm\ is\ for\ outer\ circle\ and\ r = 6cm\ is\ for\ inner\ circle.\ Use\ circles\ drawn\ below\ to\ calculate\ the\ area\ of\ shaded\ part.$

(Use $\pi = 3{,}14$) (5)



TOTAL MARKS:60