



LIMPOPO  
PROVINCIAL GOVERNMENT  
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF  
EDUCATION

VHEMBE DISTRICT

GRADE 8

MATHEMATICS P2  
TERM 4 FINAL EXAMINATION  
2023 NOVEMBER

[Stanmorephysics.com](http://Stanmorephysics.com)

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

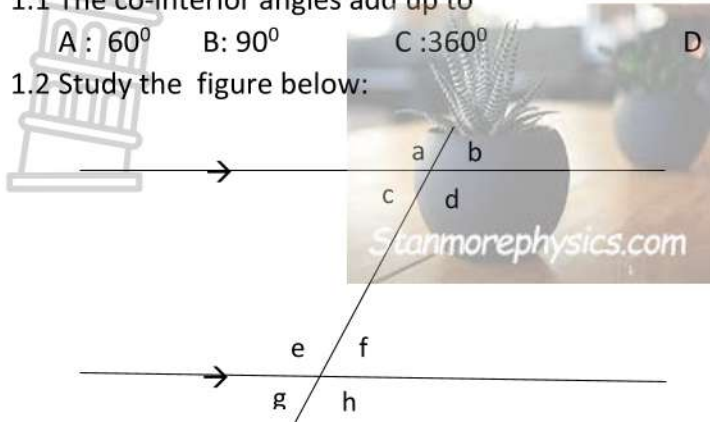
[10 MARKS]

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

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

- A :  $60^\circ$     B:  $90^\circ$     C :  $360^\circ$     D :  $180^\circ$

1.2 Study the figure below:



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

- A.  $\angle a$  and  $\angle b$     B.  $\angle c$  and  $\angle f$     C.  $\angle g$  and  $\angle h$     D.  $\angle d$  and  $\angle f$

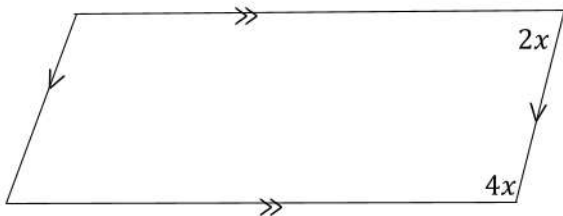
1.3 The three sides of \_\_\_\_\_ triangle are equal (1)

- 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)



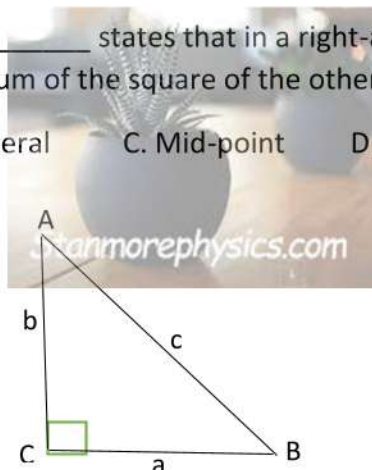
1.6 Sum of angles of a \_\_\_\_\_ equal to  $360^\circ$  (1)

- 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 (1)  
the hypotenuse equals the sum of the square of the other two sides.

- 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

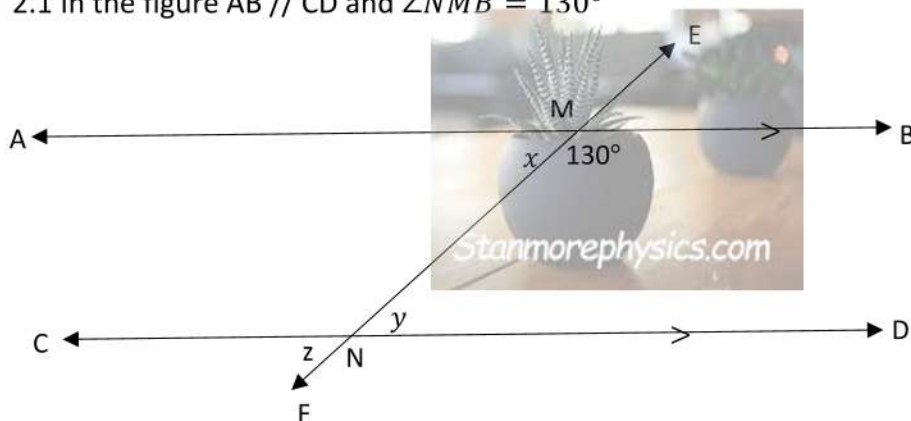
10. The formula to calculate the area of the circle is----- (1)

- A.  $\pi r^2$     B.  $\pi d$     C.  $2\pi r$     d.  $\pi r$

QUESTION 2

[12 MARKS]

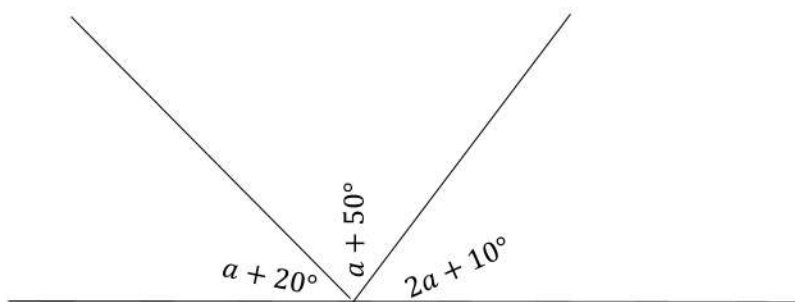
2.1 In the figure  $AB \parallel CD$  and  $\angle NMB = 130^\circ$



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)

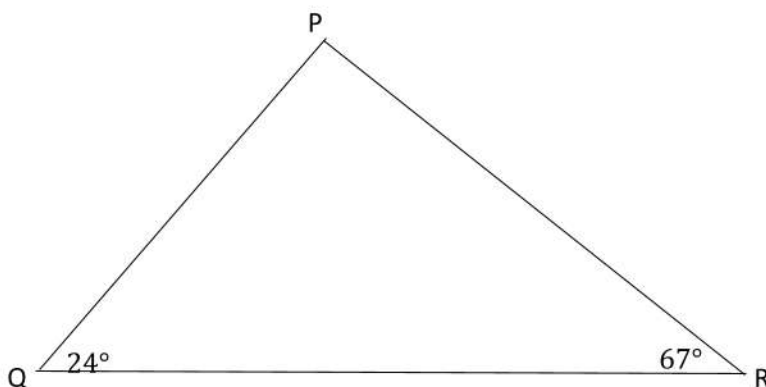
2.2 Study the diagram and determine the value of  $a$  (4)



QUESTION 3

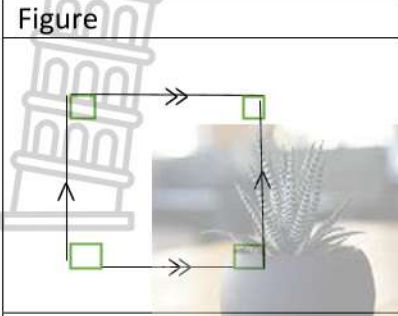

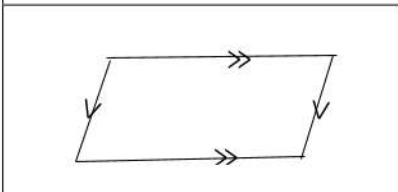
[14 MARKS]

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

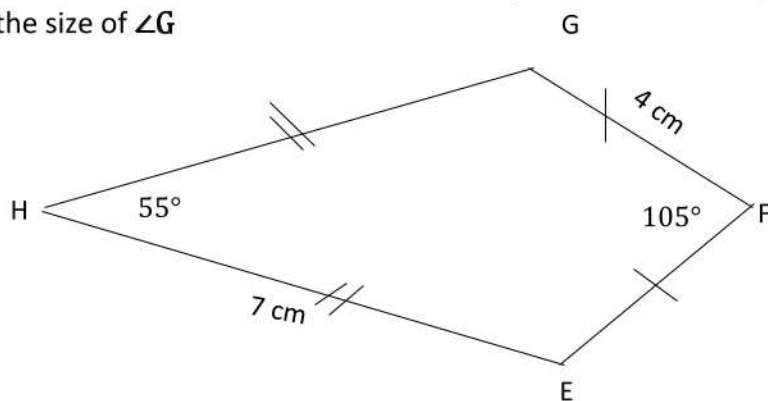


7i3.2 Complete the table below:

(6)

Figure	Type of 2D shape	Sum of interior angle
	3.2.1 _____	3.2.2 _____
	3.2.3 _____	3.2.4 _____
	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  $\angle G$

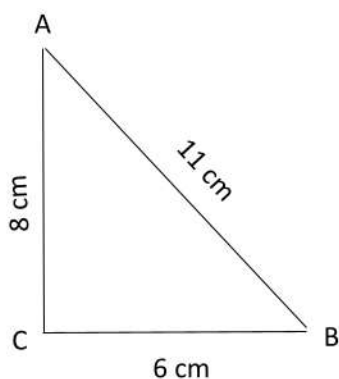


QUESTION 4

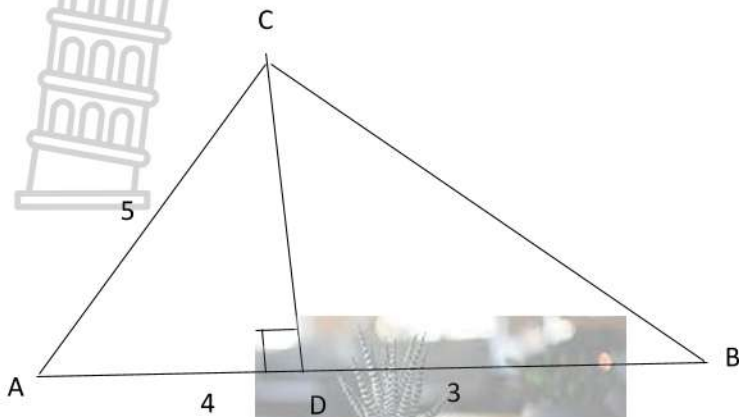
[12 MARKS]

4.1 Determine whether the following triangle is a right-angle or not.  $AB = 11\text{cm}$ ,  $AC = 8\text{cm}$  and  $BC = 6\text{cm}$

(5)



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



4.2.1 Identify a side of triangle that represents the hypotenuse in  $\triangle BCD$ . (2)

4.2.2 Find with reasons the length of CD (3)

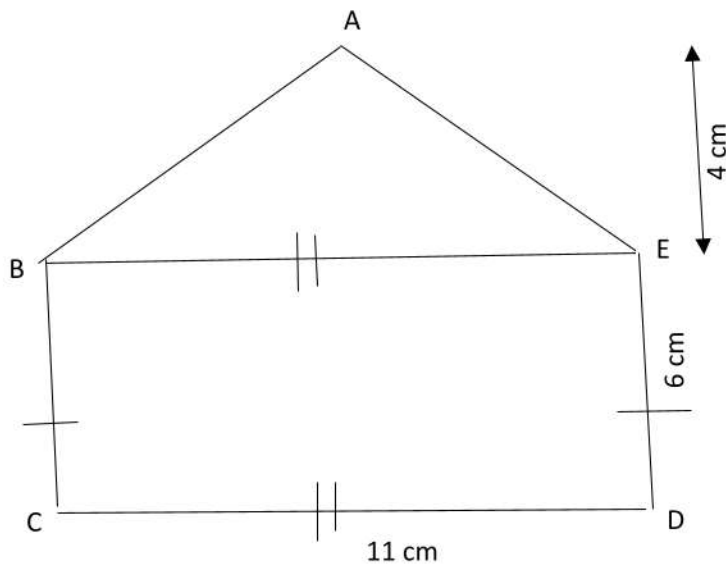
4.2.2 Find the size of  $\hat{B}$ , give reasons. (2)

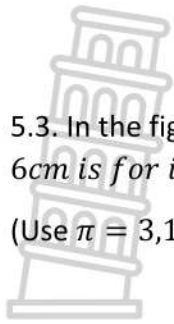
QUESTION 5

[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)

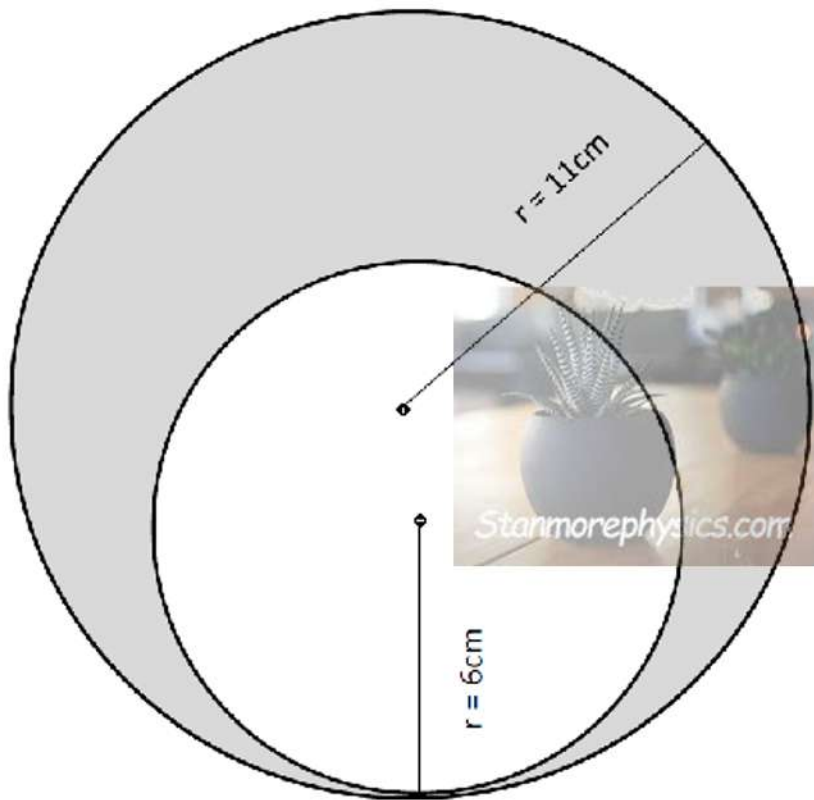




5.3. In the figure drawn below  $r = 11\text{cm}$  is for outer circle and  $r = 6\text{cm}$  is for inner circle. Use circles drawn below to calculate the area of shaded part.

(Use  $\pi = 3,14$ )

(5)



TOTAL MARKS:60