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education
Department: Education
GAUTENG PROVINCE

TSAKANE SECONDARY SCHOOL

GRADE 8

MATHEMATICS PAPER II
FINAL EXAMINATION 2023

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Name: _____

Class: _____ Date: _____

Total: 60 Marks **Time: 1½ hour**

Instructions:

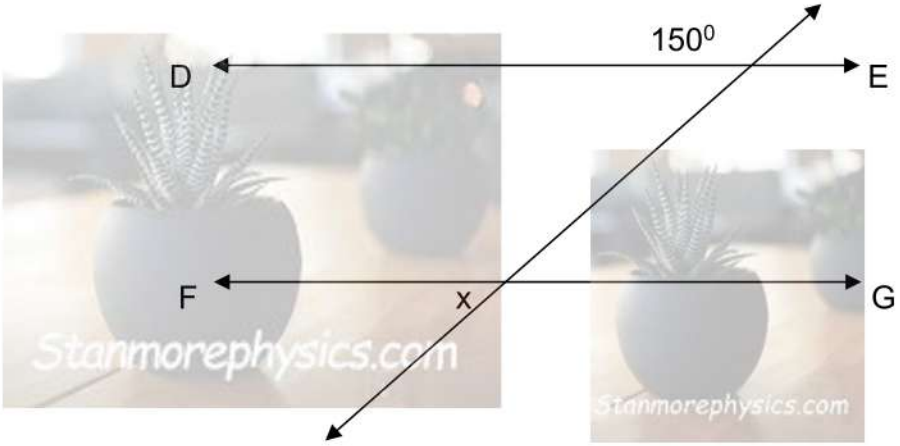
1) Write your name and surname in the spaces above.
2) This Question Paper has two Compulsory sections, Section A (Multiple Choice) and Section B.
3) All questions must be answered on the question paper.
4) Show all calculations.
5) You may use an approved calculator.
6) You must do your own work.
7) Check your answers.
8) Show the units of measurement where applicable.
9) All answers must be rounded to one decimal place unless stated otherwise.

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SECTION A
QUESTION 1

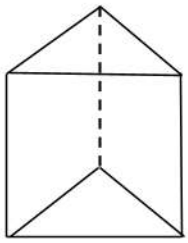
This section has 10 multiple choice questions. Four possible answers are given. Circle the letter (A - D) next to the correct answer. Answer this section on the answer sheet provided.

1.1 If DE // FG, then find the value of x is:



A. 30^0 B. 120^0 C. 40^0 D. 60^0

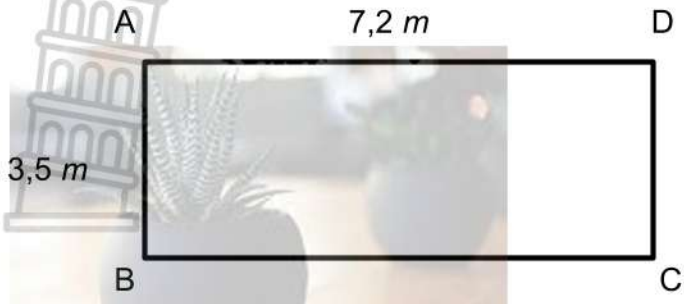
1.2 The solid below is a:



A. Square pyramid B. Cube C. Triangular prism D. Cuboid

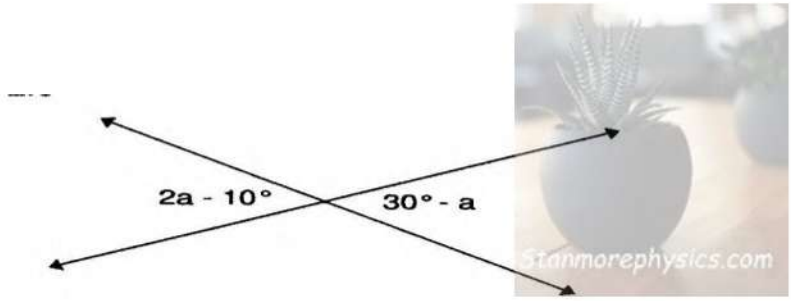
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1.3 The area of rectangle ABCD is …



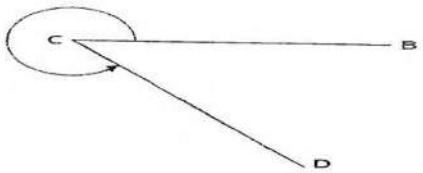
A. 31 m^2 B. 22,0m^2 C. 25,2 m^2 D. 21,0 m^2

1.4 Find the value of a



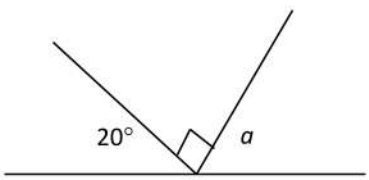
A. $13{,}3^0$ B. 15^0 C. 40^0 D. 10^0

1.5 ∠ is … angle.



A. an acute B. an obtuse C. a revolution D. a reflex

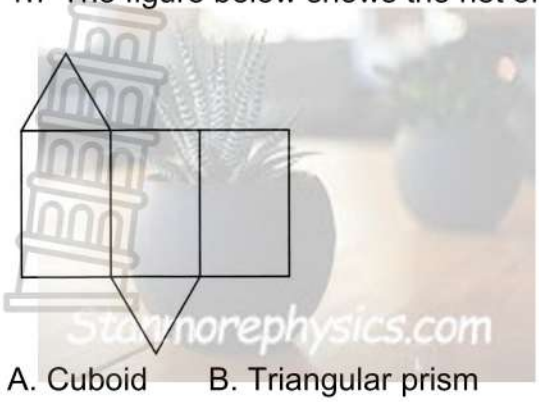
1.6 Find the value a



A. 180 B. 90 C. D. 20

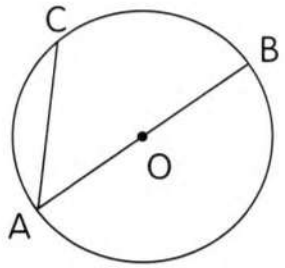
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1.7 The figure below shows the net of a solid. What is the name of the solid?



A. Cuboid B. Triangular prism C. Cylinder D. Triangular pyramid

1.8 Which one of the following is the diameter?





A. OA B. OB C. AC D.AB

1.9 A cube has a volume of 64 cm^3, what is the length of one of its sides?

A.4 cm B. 8 cm C.16 cm D.64 cm

1.10 Which equation best expresses the statement:
"The sum of the squares of t and p is 25".

A. $2t + 2p = 25$ B. $\sqrt{t^2} + \sqrt{p^2} = 25$ C. $(t + p)^2 = 25$ D. $t^2 + p^2 = 25$

[10]

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Circle the letter of the correct answer

Question				
1.1	A	B	C	D
1.2	A	B	C	D
1.3	A	B	C	D
1.4	A	B	C	D
1.5	A	B	C	D
1.6	A	B	C	D
1.7	A	B	C	D
1.8	A	B	C	D
1.9	A	B	C	D
1.10	A	B	C	D

QUESTION 2

2.1 For each of the statements below select the option that is true by writing the **LETTER** that corresponds to the correct answer in the space provided.

OPTION A:	**OPTION B:**	**OPTION C:**	**OPTION D:**
SQUARE	PARALLELOGRAM	KITE	TRAPEZIUM

2.1.1 Shape has 2 pairs of parallel sides and corners of 90°. Answer: _____ (1)

2.1.2 Shape has 1 pair of parallel sides. Answer: _____ (1)

2.1.3 Shape has one pair of opposite angles equal. Answer: _____ (1)

2.1.4 Only one diagonal is bisected Answer: _____ (1)

2.1.5 All four sides are equal. Answer: _____ (1)

2.2 Is the following statement TRUE or FALSE: All equilateral triangles, no matter what size they are, have angles that are equal to 60°._____ (1)

2.3 In a triangle, two of the angles are 35° and 63° respectively. Calculate the third angle.

_____

_____

_____. (2)

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2.4 Write down the definitions of the triangles in the table below:

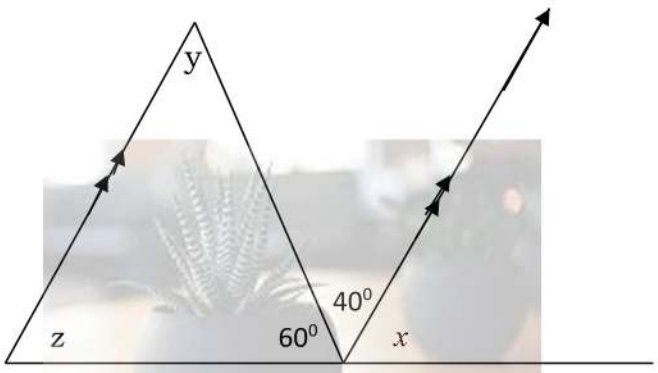
Equilateral triangle	Isosceles triangle	Right-angled triangle

(6)

[14]

QUESTION 3

3.1 Calculate the value of x, y and z in the diagram below. Provide reasons for your answers.



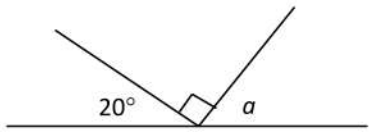
STATEMENT	REASON
x	

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y	
z	

(6)

3.2 Calculate the value of a with reasons



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(3)

3.3 Calculate the area of the shaded region. Round off your answer to two decimal places.



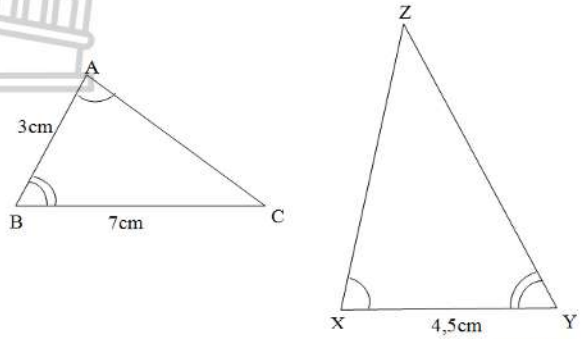
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_____(5)

[14]

QUESTION 4

4.1 Given that ΔABC is similar to ΔXYZ, calculate the length of side YZ.



_____(4)

4.2 The diagram below represents a doughnut. The radius of the smaller circle is 5*cm* and the radius of the larger circle is 7*c*



4.2.1 Determine the area of the smaller circle.

_____(2)

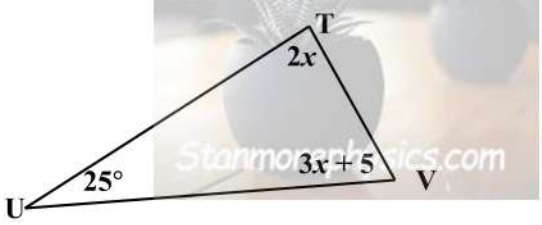
4.2.2 Determine the area of the larger circle.

_____ (2) **[8]**

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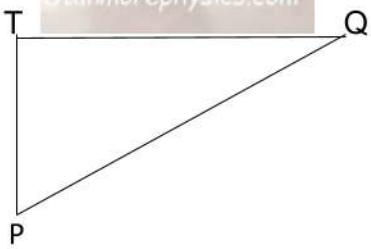
QUESTION 5

5.1 Calculate the value of x respectively in the diagram below:



(5)

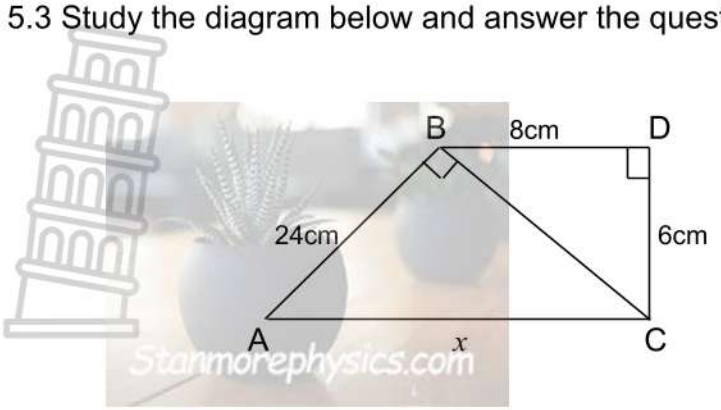
5.2 ΔPQT is a right-angled triangle with angle T = 90°. Find with reasons PT if PQ = 50cm and TQ = 40cm.



(3)

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5.3 Study the diagram below and answer the questions that follow.



5.3.1. Calculate the length BC

(3)

5.3.2. Calculate the length marked x

(3)

[14]

GRAND TOTAL [60]