education

Department of Education
FREE STATE PROVINCE

SURNAME:			___ 50
NAME:			
SCHOOL:			**%**
DATE:			
GRADE 7 _____	**BOY (MARK WITH X)**	**GIRL (MARK WITH X)**	**LEVEL:**

Question	**1**	**2**	**3**	**4**	**5**	**6**
Total Marks	**11**	**7**	**9**	**9**	**6**	**8**
Marks obtained						

GRADE 7

MATHEMATICS MOCK PAPER 2

NOVEMBER 2025

TIME: 90 MINUTES

MARKS: 50

This paper consists of 11 pages.

INSTRUCTIONS:

1. Read ALL the questions carefully.
2. Answer ALL the questions in the spaces or frames provided.
3. ALL calculations must be shown on the question paper.
4. You are NOT allowed to use a calculator.
5. You may use any mathematically correct method.
6. Note that diagrams are NOT drawn to scale.
7. Write neatly and legibly.

QUESTION 1 (GEOMETRY OF STRAIGHT LINES & CONSTRUCTION OF GEOMETRIC FIGURES)

1.1 Define the following terms:

1.1.1 Line segment (1)

_____

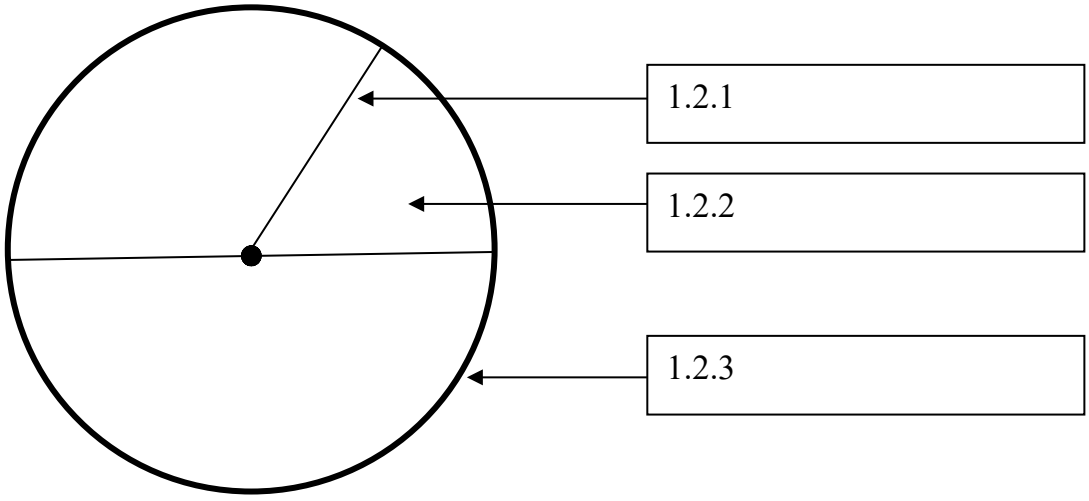
_____

1.1.2 Straight line (1)

_____

_____

1.2 Label the following parts of the circle: (3)

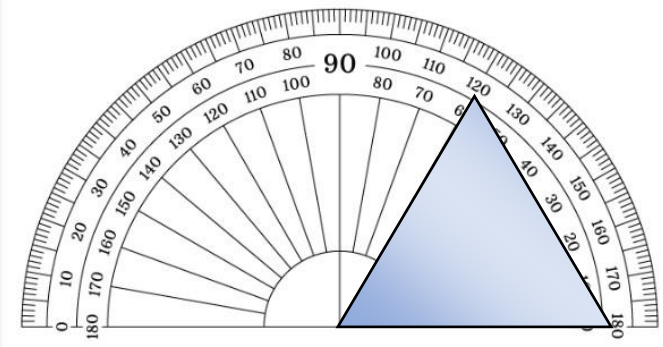


1.3 If the radius of the above circle is 5 units, calculate the diameter. (1)

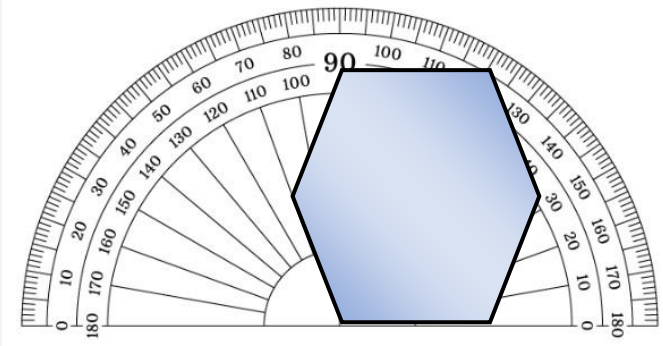
_____

1.4 Construct an angle of 60^0 from ray MN = 7 cm without using a protractor. (3)

1.5 Write down the size of the angles being measured.



1.5.1 _____ (1)

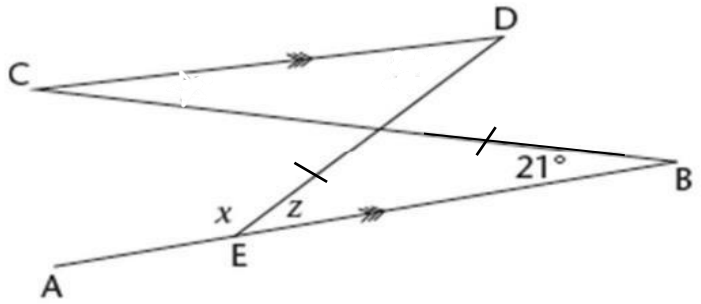


1.5.2 _____ (1)

[11]

QUESTION 2 (GEOMETRY OF 2D SHAPES)

2.1 Study the diagram provided and then answer the questions that follow.



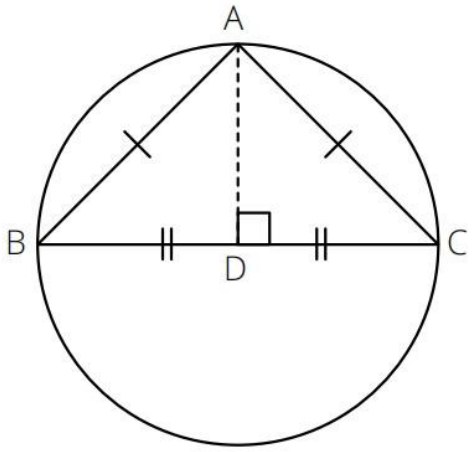
2.1.1 Write down the size of angle z. (1)

_____

2.1.2 Calculate the size of angle x. (1)

_____

2.2 Consider the figure below and then answer the questions that follow.



2.2.1 In a circle what parts are line BC and line AC?

BC is a _____ (1)

AC is a _____ (1)

2.2.2 What type of triangle is triangle ABC? (1)

_____

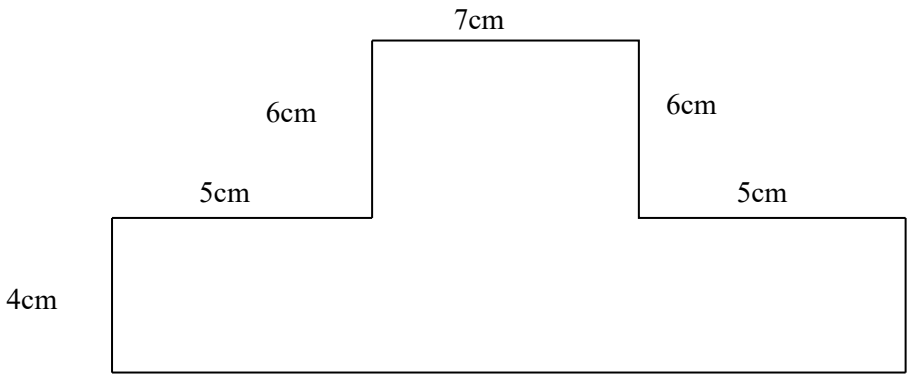
2.2.3 What type of triangle is ADC and what is its size? (2)

_____

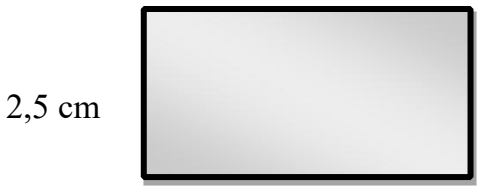
[7]

QUESTION 3 (AREA AND PERIMETER OF 2D SHAPES)

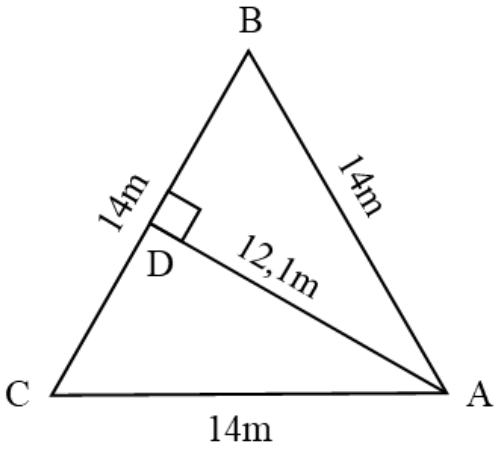
3.1 Calculate the perimeter of the composite shape. (3)



3.2 Calculate the area of the rectangle below. (3)



3.3 Calculate the area of triangle ACB. (3)



[9]

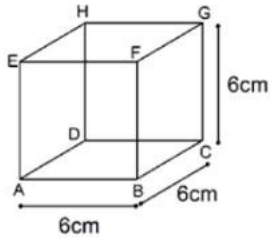
QUESTION 4 (SURFACE AREA AND VOLUME)

4.1 Convert: 2 500 mm = _____m (1)

4.2 A box has dimensions: length = 6 cm, width = 5 cm, height = 4 cm.

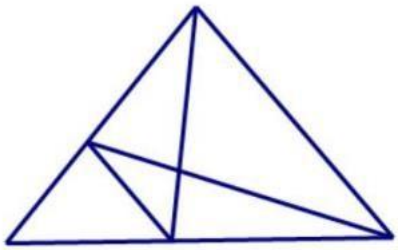
Calculate the surface area. (3)

4.3 Consider the diagram below and answer question that follow.



Calculate the volume of the container. (3)

4.4 How many triangles of all sizes are there in the figure below? (1)



_____

4.5 In the diagram below, which has not been drawn to scale, the large rectangle has been divided into four smaller rectangles. The areas of three of the rectangles are given. What is the area of the fourth rectangle? (1)

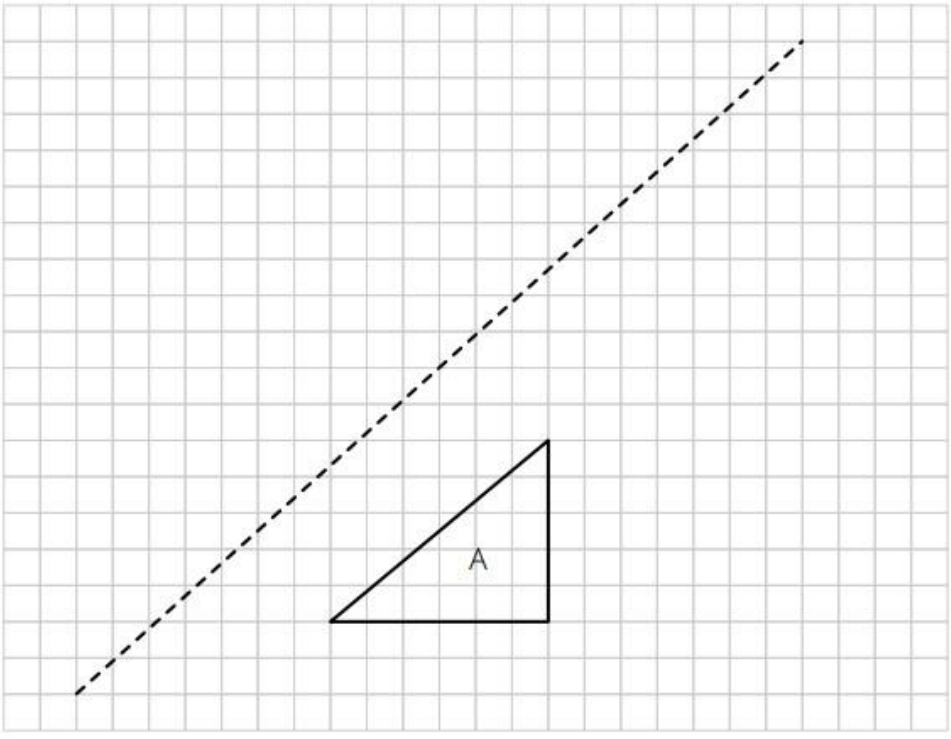
4 cm^2	6 cm^2
	15 cm^2

_____

[9]

QUESTION 5 (TRANSFORMATION GEOMETRY)

5.1 Look at triangle A on the square grid and answer the questions.



5.1.1 Reflect triangle A on the square grid over the mirror line and call the new triangle A^I. (2)

5.2.2 Rotate triangle A^I 90° clockwise and label the new image A''. (2)

5.2.3 Translate triangle A 9 units to the right and 5 units up and label the image triangle B. (2)

[6]

QUESTION 6 (DATA HANDLING)

6.1 Mrs Abrahams recorded her class test results. The test was out of 50 marks. The learners' results are displayed in a stem-and-leaf diagram.

1	1	3	6	9			
2	0	1	1	1	4	8	
3	3	4	5	7	7	8	9
4	0	5	6	8			

6.1.1 How many learners wrote the test? (1)

_____

6.1.2 What is the percentage of the highest mark obtained? (1)

_____

6.1.3 Calculate the range of the data. (1)

6.1.4 Calculate the mean of the data. (2)

6.1.5 Calculate the difference of the fractions of the learners who scored more than 40% and those that scored less than 40%. Write your answer in decimal form. (3)

[8]