Candidate's Name		**Assessment Number**	
School Name		**School Code**	
Candidate's Signature		**Date**	

-MATHEMATICS-

KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT

803: MATHEMATICS

TERM 2 ENDTERM 2025

Time: 1 hour 40 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and assessment number in the spaces provided above.
2. Write the name and code of your school in the spaces provided above.
3. Sign and write the date of the assessment in the spaces provided above.
4. This paper consists of two sections: A and B.
5. Section A comprises Multiple Choice Questions numbered 1 to 30.
6. Section B comprises short, structured questions number 31 to 42.
7. Answer ALL the questions in section A on the separate ANSWER SHEET provided.
8. Answer ALL the questions in section B in the spaces provided in this QUESTION PAPER.
9. Do NOT remove any page from this question paper.
10. Answer ALL the questions in English.

For official use only

Section	Task	Question Numbers	No. of Questions	Max Score	Candidate Score
Section A	Multiple Choice	Q1 – Q20	20 MCQs	20 marks	
Section B	Task 1 – Operations & Word Problems	Q21 – Q23	3	16 marks	
	Task 2 – Algebra & Geometry	Q24 – Q25	2	14 marks	
	Task 3 – Measurement & Geometry	Q26 – Q28	3	20 marks	
	Task 4 – Data Handling & Probability	Q29 – Q31	3	18 marks	
	Task 5 – Pie Chart & Time Allocation	Q32 – Q33	2	12 marks	
TOTAL				**100 marks**	

This paper consists of 13 printed pages. Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

SECTION A: (20 MARKS)

Answer all questions in this section

1. What is the value of $(-3)^2 + (-2)^3$?
   A. 17
   B. 1
   C. -1
   D. -17
2. Express 0.45 as a simplified fraction.
   A. $\frac{45}{100}$
   B. $\frac{20}{9}$
   C. $\frac{9}{20}$
   D. $\frac{5}{11}$
3. The area of a triangle with base 12 cm and height 8 cm is:
   A. 96 cm^2
   B. 48 cm^2
   C. 20 cm^2
   D. 40 cm^2
4. Solve the equation $4x - 7 = 9$.
   A. 0.5
   B. 2
   C. 4
   D. 16
5. What is the next number in the sequence 2, 5, 10, 17, ...?
   A. 24
   B. 26
   C. 28
   D. 30
6. A shopkeeper buys an item at Ksh 200 and sells it at Ksh 250. What is the percentage profit?
   A. 20%
   B. 25%
   C. 50%
   D. 125%
7. The sum of angles in a quadrilateral is:
   A. 90°
   B. 180°
   C. 270°
   D. 360°
8. Simplify: $3(2a + b) - 2(a - 2b)$
   A. $4a - 3b$
   B. $4a + 7b$
   C. $8a - 3b$
   D. $8a + 5b$

Working space

9. Convert 36 km/h to m/s.
   A. 0.1
   B. 10
   C. 100
   D. 360
10. Find the square root of 289.
   A. 15
   B. 17
   C. 18
   D. 19
11. What is the value of the digit 5 in 345,678,902?
   A. Ten million
   B. Five million
   C. Hundred thousand
   D. Ten thousand
12. What is the interior angle of a regular octagon?
   A. 108°
   B. 120°
   C. 135°
   D. 144°
13. Which shape has all sides equal but angles not necessarily 90°?
   A. Rectangle
   B. Square
   C. Rhombus
   D. Trapezium
14. If y varies directly as x, and y = 12 when x = 3, find y when x = 5.
   A. 4
   B. 15
   C. 20
   D. 60
15. Find the volume of a cuboid 5 cm by 3 cm by 2 cm.
   A. 10 cm^3
   B. 15 cm^3
   C. 30 cm^3
   D. 60 cm^3
16. A bag contains 3 red, 2 green, and 5 blue balls. Probability of picking red is:
   A. $\frac{1}{10}$
   B. $\frac{3}{10}$
   C. $\frac{3}{5}$
   D. $\frac{1}{2}$

Working space

17. What is the range of the set: 10, 18, 22, 15, 25?
    A. 5
    B. 10
    C. 15
    D. 20
18. Find the gradient between points (2, 4) and (4, 8).
    A. 2
    B. 4
    C. 1
    D. 0
19. Constructing an angle of 90° using compass and ruler involves bisecting:
    A. 30°
    B. 45°
    C. 60°
    D. 180°
20. Convert 37.5°C to Kelvin. (K = °C + 273)
    A. 310.5 K
    B. 305.5 K
    C. 312.5 K
    D. 300.5 K

Working space

SECTION B: (80 MARKS)

Answer all questions in the spaces provided. Show all workings.

Question 21.

(a) Evaluate: $\frac{43+52\div15-8}{4} \times 3$ (4 marks)

(b) A farm is shared: Alice gets ⅓, Ben ½ of the remainder, Carol the rest. Total land is 30 hectares. Find land Carol gets. (4 marks)

(c) Round off 456.783:

(i) To the nearest ten.

(ii) To 1 decimal place. (2 marks)

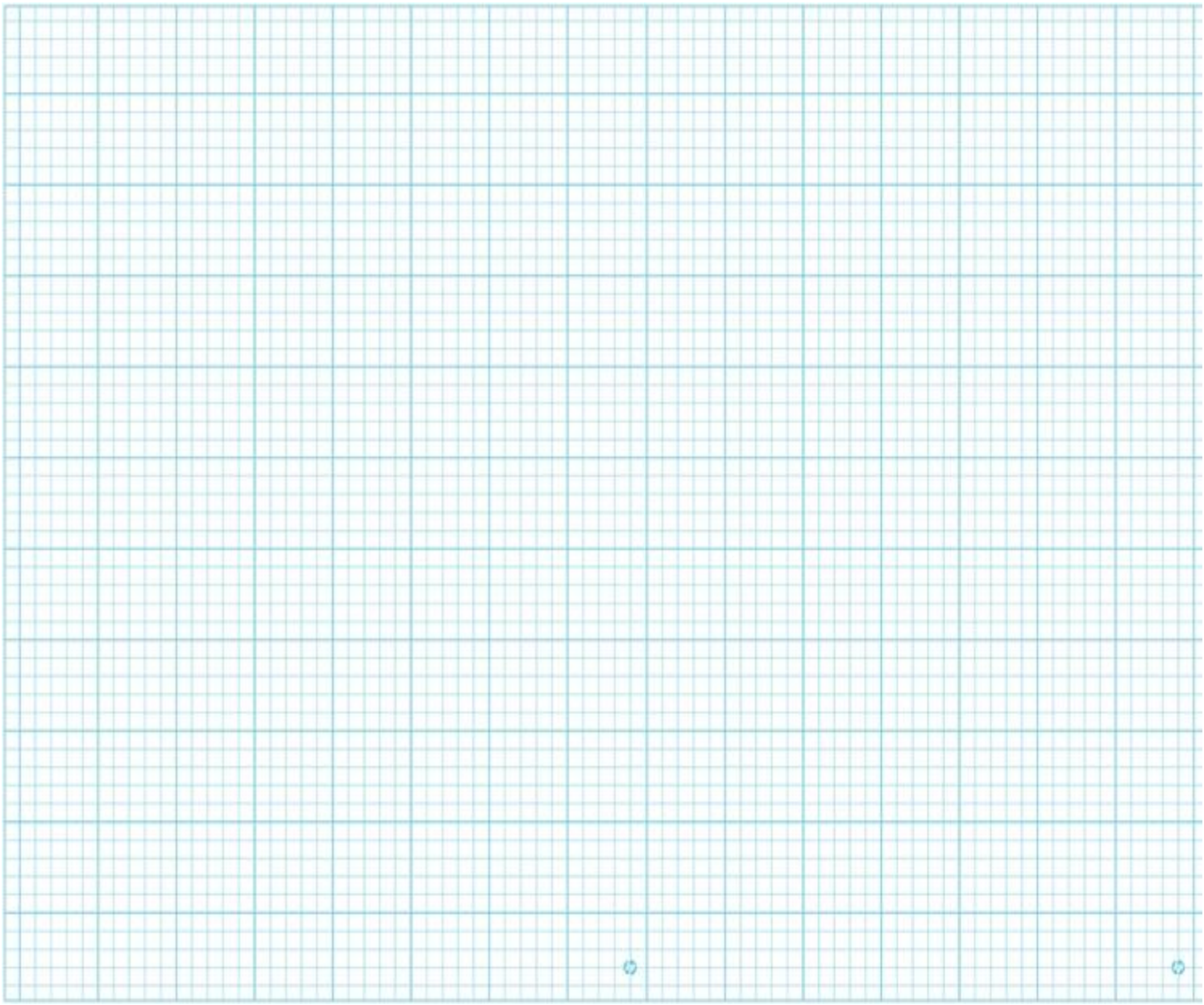
(d) Express 0.0032 in standard form. (2 marks)

Question 22.

(a) Solve the simultaneous equation graphically

$2x + 3y = 11$

$x - y = 3$ (6 marks)



(b) **Simplify the expression completely:**

$5x-3(2x-4)+x$ (2 marks)

(c) Factorize:

$6x^2 - 18xy$ (2 marks)

(d) Solve:

$3x + 2 = 27$ (2 marks)

Question 23.

(a) The angles in a triangle are in ratio 2:3:5. Find the three angles. (4 marks)

(b) Construct a triangle ABC where AB = 6 cm, AC = 5 cm, and ∠BAC = 60°. (5 marks)

(c) Measure angle ABC and state its size. (2 marks)

(d) Construct the perpendicular bisector of line AB. (2 marks)

Question 24.

The marks scored by 10 learners: 15, 20, 25, 18, 30, 22, 28, 15, 24, 23
(a) Find:
(i) Mean (2 marks)

(ii) Median (2 marks)

iii) Range (1 mark)

(b) A bag has 7 red, 5 blue, and 3 green balls. A ball is picked at random. Find the probability that:

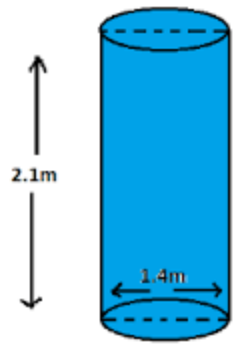
(i) It is red (2 marks)

(ii) It is not blue (2 marks)

(iii) It is green or red (2 marks)

Question 25.

A cylindrical tank has diameter 1.4 m and height 2.1 m. Use $\pi = \frac{22}{7}$.



(a) Find:

(i) Area of the base (3 marks)

(ii) Volume of the tank in cubic meters (2 marks)

(iii) Capacity in liters (1 m^3 = 1000 L) (2 marks)

(b) A car moves 120 km in 2 hours. Find:

(i) Its average speed in km/h (2 marks)

(ii) Convert the speed to m/s (2 marks)

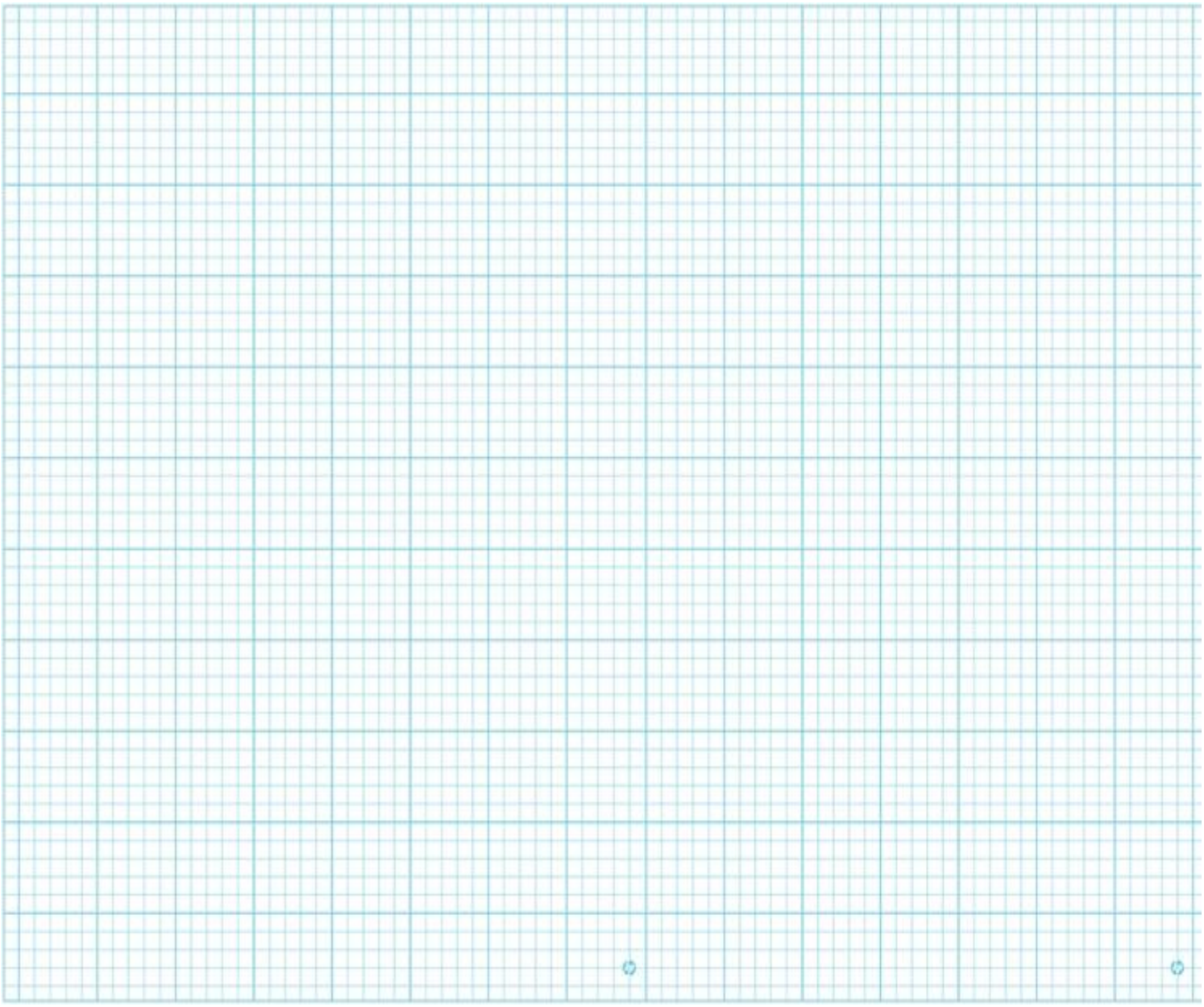
(iii) How far will it go in 45 minutes? (2 marks)

Question 26.

The table shows the number of chapatis sold per day:

Day	Chapatis Sold	Frequency
Mon	10	2
Tue	12	4
Wed	14	3
Thu	16	5
Fri	18	1

a) Draw a bar graph to represent the total number of chapatis sold per day. (3 marks)

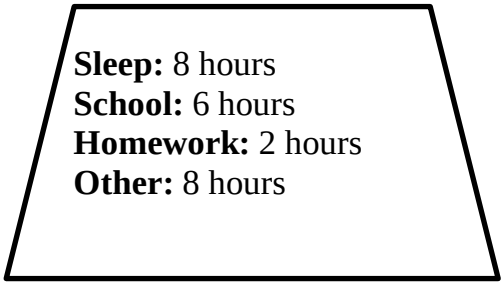


b) How many chapatis were sold that week? (2 marks)

c) Find the mean number of chapatis sold. (2 marks)

Question 27

A learners's daily routine is as follows:



a) Draw a well labelled pie chart to represent the information above. (3 marks)

b) What angle on a pie chart represents 'School'? (2 marks)

c) What percentage of time is spent on 'Homework'? (2 marks)

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