Candidate's Name		Assessment No.	
School Name		School Code	
Candidate's Sign		Date	

003-2025

JUNIOR SCHOOL ASSESSMENT

GRADE 8

JESMA 003

- MATHEMATICS-

Time: 2 hours

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 question paper consists of **TWO** sections: **A** and **B.**
5. Answer ALL the questions in section A on the separate **ANSWER SHEET** provided.
6. Answer ALL the questions in section B in the spaces provided in this **QUESTION PAPER.**
7. Show all the workings in section B in the spaces provided.
8. Non-programmable calculators may be used, except where stated otherwise.
9. Give non-exact numerical answers, correct to 3 significant figures, and one decimal place for angles in degrees, unless a different level of accuracy is specified in the question.
10. For π, use either the calculator value or 3.142.
11. Do **NOT** remove any page from this question paper.
12. Answer **ALL** the questions in **English.**

Task	Question Numbers						Total score
Task 1	Question	21	22	23	24	25	
	Score						
Task 2	Question		26	27	28		
	Score						
Task 3	Question	29	30	31	32	33	
	Score						
Task 4	Question	34	35	36	37	38	
	Score						
Task 5	Question		39	40			
	Score						

This paper consists of 8 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: 20MARKS

1. Which of the following is **not** an integer?

A. –3 B. 0
C. –4.2 D. 9

2. Use a number line to work out
(–6) + (–2)

A. 4 B. 8
C. –8 D. –4

3. Mathew read $^{2}/_{7}$ of a story book on Monday, $1^{1}/_{3}$ on Tuesday and the rest on Wednesday. If he read 24 pages on Wednesday, how many pages are there in the story book?

A. 63 B. 37
C. 21 D. 48

4. Convert $^{1}/_{8}$ to a decima l correct to 2 decimal places.

A. 0.375 B. 0.125
C. 0.12 D. 0.13

5. Which of the following is a recurring decimal?

A. $^{4}/_{5}$ B. $^{1}/_{4}$
C. $^{5}/_{8}$ D. $^{2}/_{9}$

6. Convert 0.0270 to a fraction in the simplest form.

A. $^{1}/_{30}$ B. $^{1}/_{36}$
C. $^{2}/_{9}$ D. $^{5}/_{7}$

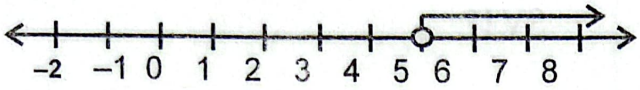
7. During a tree planting day, Mana Primary School learners planted 1684 trees. Write the number of trees planted correct to 2 significant figures.

A. 1600 B. 1700
C. 1680 D. 16.84

8. A meeting was attended by not more than 20 people. Form an inequality to represent the number of people in the meeting.

A. $x > 20$ B. $x < 20$
C. $x \geq 20$ D. $x \leq 20$

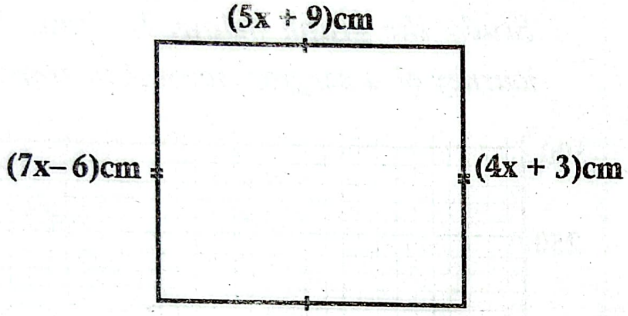
9. Which inequality is represented by the number line below?



A. $y < 5$ B. $y > 5$

C. $y \leq 5$ D. $y \geq 5$

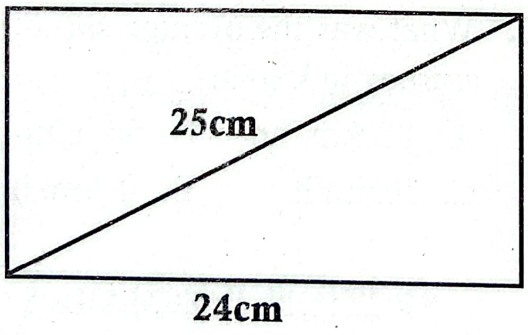
10. Find the value of x in the figure below.



A. 9 B. 6

C. 3 D. 4

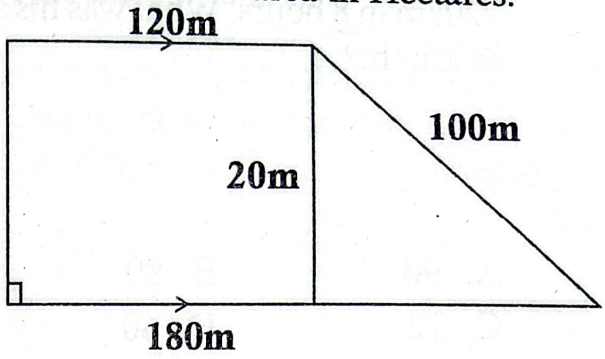
11. Find the perimeter of the triangle below whose length is 24cm and diagonal 25cm.



A. 49cm B. 84cm

C. 31cm D. 62cm

12. A piece of land is in the shape shown below. Find its area in Hectares.



A. 12000 B. 1.2

C. 480 D. 0.048

13. A cuboid has a capacity of 0.648L. If its length is 12cm and width 9cm, find its height in cm.

A. 9cm B. 6cm

C. 7cm D. 3cm

14. A train left Kisumu at 8:30am and arrived in Nairobi at 2:15pm. How long did it take?

A. 6hours 10minutes

B. 5hours 15minutes

C. 4hours 45minutes

D. 5hours 45minutes

15. A motorist covered a distance of 720km in 8 hours. What was his speed in km/hr?

A. 90 B. 80
C. 72 D. 60

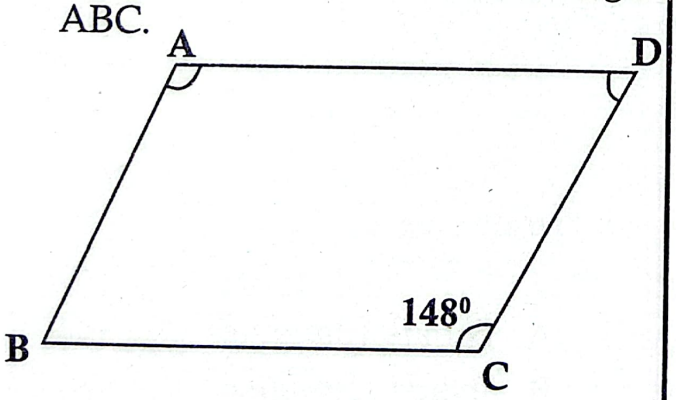
16. The temperature of ice was 15°C below the freezing point. What was its temperature in Kelvin?

A. 292 B. 273
C. 254 D. 301

17. Onyango bought a piece of land for sh.600000 and later sold it for sh.588000. What was the percentage loss?

A. 12000% B. 100%
C. 20% D. 2%

18. The figure below is a parallelogram. Study it and calculate the size of angle ABC.

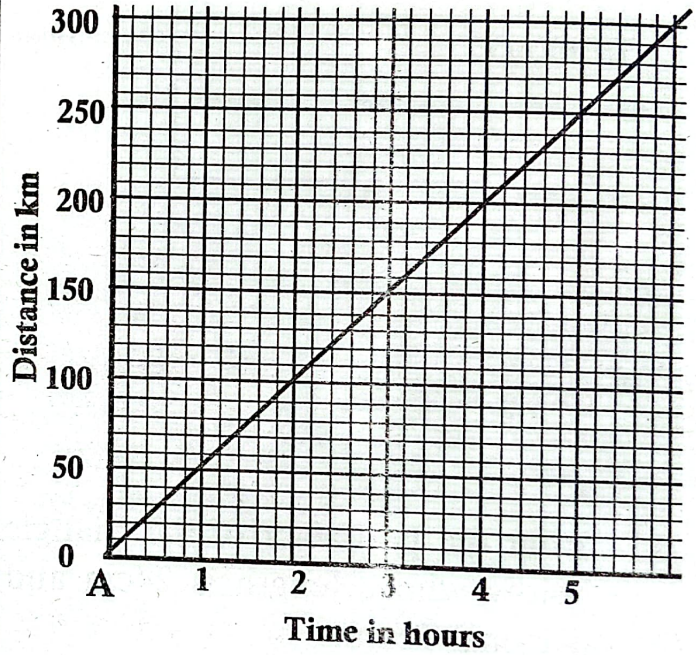


A. 148° B. 22°
C. 32° D. 180°

19. Draw a triangle STV in which line ST = 6cm, angle STV - 45° and angle VST = 70°. What is the measure of angle SVT?

A. 115° B. 65°
C. 75° D. 45°

Study the graph below. It shows the journey of a car from town A to town B.



20. What was the average speed for the journey in km/hr?

A. 250km/hr B. 5km/hr
C. 50km/hr D. 40km/hr

SECTION B: 80MARKS

21. A fertilizer manufacturing company produced 7834289.56kg in one month.

a) Write the amount of fertilizer produced in words. **(2mks)**

b) What is the total value of digit 4 in the number? **(1mk)**

c) By how much is the value of digit 9 more than the value of digit 6? **(1mk)**

22. Mandela spends $^1/_4$ of his salary on rent, $^1/_8$ on food, $^1/_2$ of the remainder on school fees and saves the rest.

a) What fraction does he spend on school fees? **(1mk)**

b) What fraction does he save? **(1mk)**

c) If he saves sh.10000, how much does he earn? **(2mks)**

23. Suleiman added $^1/_{11}$ grams of salt to his food.

a) Convert $^1/_{11}$ to a decimal and write the answer in decimal notation. **(2mks)**

b) State whether the decimal in (a) above is either recurring or non-recurring. **(1mk)**

c) Show the steps you would follow to convert the decimal in (a) to $^1/_{11}$ again. **(2mks)**

24. On a farm, there are cows, goats and sheep in the ration 5:2:4 respectively.

a) Write the fraction representing the goats. **(1mk)**

b) If there are 66 animals on the farm, how many more cows than sheep are on the farm? **(2mks)**

c) During a dry season 5 cows and 3 goats died. How many cows and goats remained altogether? **(2mks)**

25. The number of textbooks in the library in the year 2024 was 750. In the year 2025 the number of textbooks incraesed to 1000.

a) What was the increase ratio in the number of textbooks? **(1mk)**

b) Calculate the percentage increase in the number of textbooks. **(2mks)**

26. Three men can weed a garden in five days. If one man did not turn up for the work, how much longer did it tak the remaining men to complete the same work? **(3mks)**

27. Njeri had a square garden of area $60.42m^2$.

a) Use a Mathetical table to find the length of one side of the garden. **(2mks)**

b) If she used three strands of wire to fence the garden, what is the length of the wire used? **(2mks)**

28. Maasai used 0.0862 litres of petrol to travel from Machakos to Kibwezi. Write the amount of petrol used in standard form. **(2mks)**

29. Solve: $4x + 2y = 16$ and $3x + 22y = 113$ using elimination method. **(3mks)**

30. Zainab bought **p** pens. She gave 3 pens to her friend. The number of pens she was left with was not less than 12.

a) Form an inequality to represent the number of pens that Zainab was left with. **(2mks)**

b) Represent the remaining pens using a number line. **(2mks)**

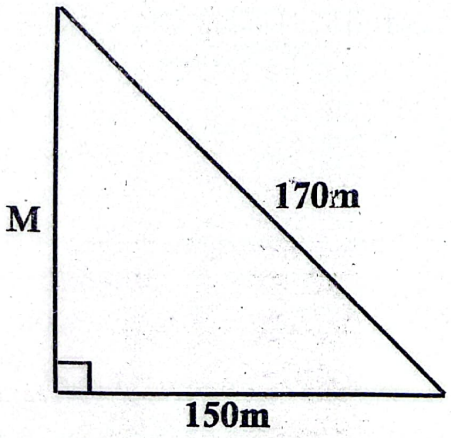
31. Atieno is x years old. Her sister is 2 years younger. Her mother is three times her age.

a) What is the age of her sister? **(1mk)**

b) How old is her mother? **(1mk)**

c) What will be the sum of their ages in 5 years time? **(3mks)**

32. The figure below represents Mwendo's farm.



a) What is the length of the side labelled M? **(2mks)**

b) Mwendo went round the garden four times. What distance did he cover? **(2mks)**

c) What is the area of the garden in square metres? **(2mks)**

33. A rectangular water tank has a square base of 8m and a height of 4m.

a) What is the volume of the tank? **(3mks)**

b) If the tank is half full of water, how many litres of water are in the tank? **(3mks)**

34. The distance between town A and town B is 240km. A motorist left town A at 11.00am and arrived in town B at 2.00pm.

a) How long did the motorist take from town A to town B? **(2mks)**

b) What was the motorist's speed in km/hr? **(2mks)**

c) Find his speed in m/s. **(2mks)**

35. Abdul went to a supermarket and purchased the following items;

3kg of sugar each at sh.150

2 bars of soap each at sh.200 $1^1/_2$*kg of rice for sh.400*

Three matchboxes for sh.18

$^1/_2$*kg margarine for sh.250*

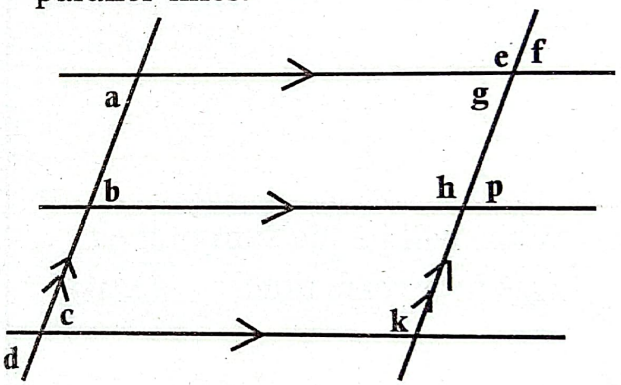
a) Prepare a bill for the items Abdul bought. **(3mks)**

b) If he paid for the items using two-sh1000 notes, what was his balance? **(2mks)**

36. The marked price of a radio was sh.1200. Mueni paid sh.1080 after being allowed a discount. What is the percentage discount? **(3mks)**

37. An oil tank has a diameter of 2.8m and a length of 14m. What is the volume of the tank? **(3mks)**

38. Study the angles below formed by parallel lines.



a) What is the relationship between the following angles? **(4mks)**

i) a nd b

_____

ii) c and d

_____

iii) e and f

_____

iv) g and h

_____

b) Using a pair of compasses and a ruler only, construct an angle XYX = 30^0. **(3mks)**