JESMA
004

K.C.P.E FOURTH TRIAL
STANDARD EIGHT

MATHEMATICS

Time: 2 hours

READ THESE INSTRUCTIONS CAREFULLY

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 50 questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer, mark it on the **ANSWER SHEET**, not in the question booklet.

HOW TO USE THE ANSWER SHEET

4. Use only an ordinary pencil.
5. Make sure that you have written on the answer sheet:

YOUR INDEX NUMBER

YOUR NAME

NAME OF YOUR SCHOOL

6. By drawing a dark line inside the correct numbered boxes mark your full Index Number (i.e. School Code Number and the three-figure Candidate's Number)) in the grid near the top of the answer sheet.
7. Do not make any marks outside the boxes.
8. Keep your answer sheet as clean as possible and **DO NOT FOLD IT.**
9. For each of the questions 1 – 50, four answers are given. The answers are lettered A, B, C and D. In each case only **ONE** of the four answers is correct. Choose the correct answer.
10. On the answer sheet the correct answer is to be shown by **drawing a dark line** inside the box in which the letter you have chosen is written.

Example:

In the Question Booklet:

34. What is the value of: 0.777÷5.00 of ((0.57–0.33))÷0.33 × 0.4?

A.. 1..77368
B.. 2.3222
C.. 1..1440
D.. 0.906522

The correct answer is **B** (2.3222)

On the answer sheet

33. [A] [B] [C] [D] **34.** [A] [B] [C] [D] **35.** [A] [B] [C] [D] **54.** [A] [B] [C] [D] **44.** [A] [B] [C] [D]

In the fourth set, the box with the letter B printed in it is marked.

11. Your dark line **MUST BE** within the box.
12. For each question **ONLY ONE** box is to be marked in each set of four boxes.

This question paper consists of 8 printed pages

TURN OVER

1. Which of the following number is 425 6,352.021

A. Four million two hundred and fifty six thousand three hundred and fifty two and twenty one hundredths.

B. Four million two hundred and fifty six thousand three hundred and fifty two thousand.

C. Four million two hundred and fifty six thousand three hundred and fifty two and twenty one thousandth.

D. Four million two hundred and fifty six thousand three hundred and fifty two and two hundred tenth.

2. What is the value of 2 in the number 563.1427

A. Thousandth B. $\frac{2}{100}$

C. 0.02 D. Two thousandth

3. How many days were there between 21st December 2011 and 3rd march 2012.

A. 73 B. 71

C. 72 D. 74

4. Round off the following number to the nearest hundredth.

367.9965

A. 368 B. 368.0

C. 368.00 D. 368.000

5. What is the value of

$$\frac{2(6^2-4^2)-8\times 6\div 2}{2\times 4}$$

A. 40 B. 24

C. 16 D. 2

6. Chepngeno bought the following items from the shop.

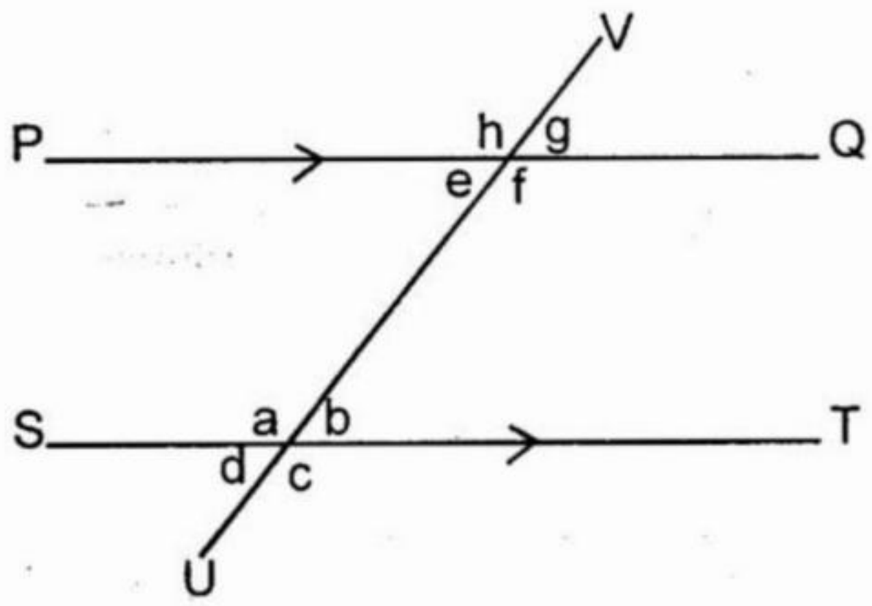
3kg rice @ shs.82
2 bars of soup @ shs.115
250g of washing powder for 65
½ litre of cooking oil @ shs.60 per ¼ litres
4kg of maize meal @ shs.95 per 2kg packet.

If she paid using 2-500 shillings notes, how much balance did she get?

A. 149 B. 851

C. 89 D. 179

7. In the figure below line PQ is parallel to line **ST**. Line **UV** is a transversal



Which of the following statements is not **TRUE**

A. $a + g = 180^0$

B. $d = g$

C. $a + c = e + h$

D. $d + h = f + c$

8. What is the sum of the square of $\frac{2}{3}$ and the square root of $6\frac{1}{4}$?

A. $6\frac{11}{12}$ B. $2\frac{17}{18}$

C. $6\frac{25}{36}$ D. $2\frac{3}{4}$

9. What is the seventh number in the sequence?

2, 4, 7, 12, 19 _____ _____

A. 30

B. 41

C. 13

D. 43

10. Which one of the following is the simplest form of

$$\frac{3(a+2b)+a+b}{5(2b+a)-5b-4a}$$

A. $\frac{3a+5b}{15b-9a}$ B. $\frac{4a+7b}{5b+a}$

C. $\frac{3a+b}{10b+9a}$ D. $\frac{4a+3b}{5b-a}$

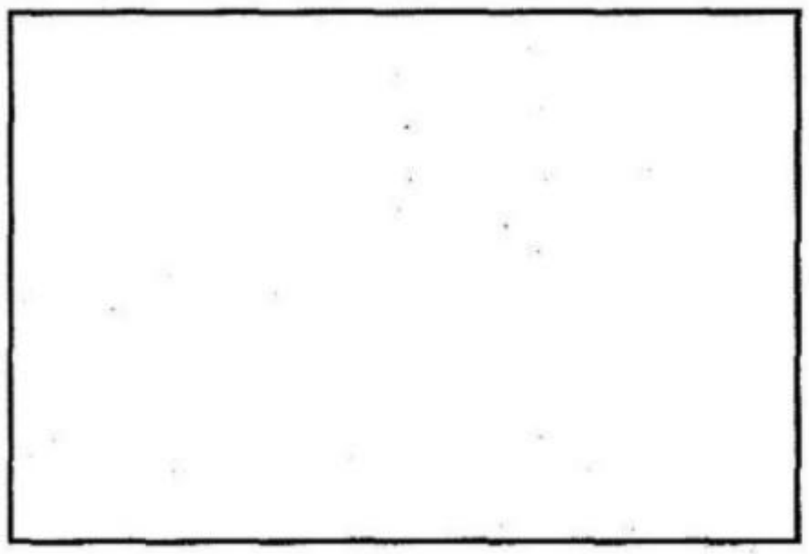
11. Below is a train time table from town A to F.

TOWN	ARRIVAL TIME	DEPARTURE TIME
A		6:00am
B	8:20am	8:35am
C	10:45am	11:05am
D	12:40pm	12:55pm
E	2:10pm	2:25pm
F	3:15pm	3:30pm

How long did the train take to travel from town B to town E?

A. 5hrs 50min
B. 5hrs 35min
C. 6hrs 05min
D. 4hrs 50min

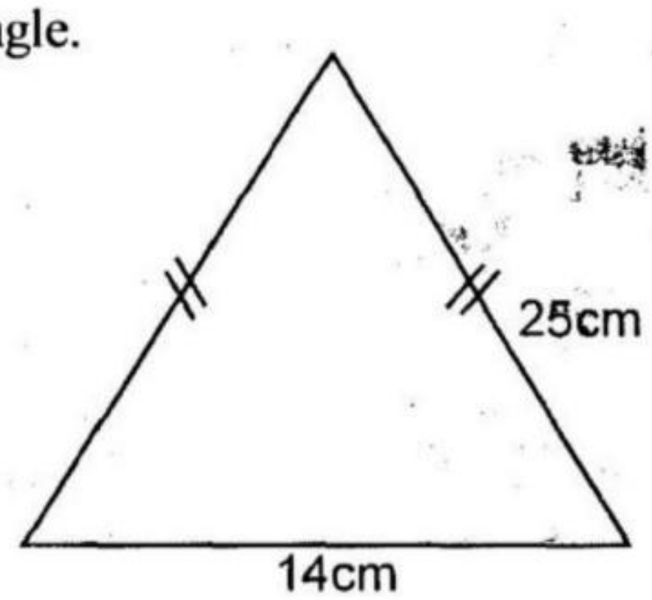
12. The rectangle below is drawn to scale of 1cm: 50 000cm.



What is the actual area in hectares?

A. 60000 hectares B. 600 hectares
C. 60 hectares D. 6 hectares

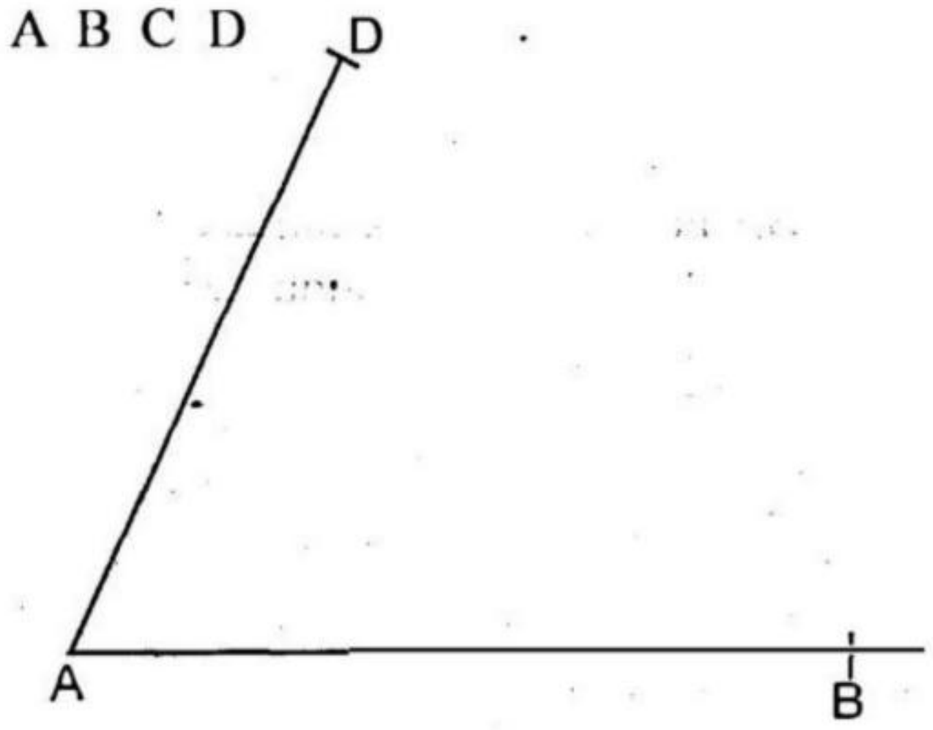
13. The diagram below shows an isosceles triangle.



Calculate the area of the triangle.

A. $350cm^2$ B. $175cm^2$
C. $336cm^2$ D. $168cm^2$

14. The diagram below is part of a Rhombus



Complete the Rhombus and drop a perpendicular from point D to meet A B at X. What is the measure of the line XB?

A. 4cm B. 5cm
C. 4.5cm D. 6.7cm

15. Onyango paid 12,375 for a TV after getting a 25% discount. What was the marked price of the TV set?

A. Shs.4125 B. Shs.9281.25
C. Shs.16,500 D. Shs.4,200

16. Three buses leave the bus station at an interval of 24min, 36min and 48min. If they all left the bus station at 8:10am, when will they leave station together again?

A. 10:34am B. 11:34am
C. 9:34am D. 10:34pm

17. A rectangular water tank measures 2.4m long, 1.2m wide and 0.9m high. If it contains water to a height of 0.75m, how many more litres of water are required to fill the tank?

A. 2160 litres B. 2592 litres
C. 1620 litres D. 432 litres

18. The fractions $\frac{1}{2}\ \frac{7}{9}\ \frac{3}{8}\ \frac{5}{7}$ are to be arranged from the largest to the smallest. Which of the following is the correct order?

A. $\frac{7}{9}, \frac{1}{2}, \frac{5}{7}, \frac{3}{8}$ B. $\frac{7}{9}, \frac{5}{7}, \frac{3}{8}, \frac{1}{2}$

C. $\frac{7}{9}, \frac{5}{7}, \frac{1}{2}, \frac{3}{8}$ D. $\frac{5}{7}, \frac{7}{9}, \frac{1}{2}, \frac{3}{8}$

19. The following are characteristics of **quadrilaterals**

i. Diagonals bisect at right angle.
ii. Diagonals are equal
iii. All angles are equal
iv. Opposite sides are equal and parallel
v. All sides are equal

Which combination is true **for both square**, and a rhombus?

A. (i) (iv) (v) B. (i) (iv) (ii)
C. (ii) (iii) (iv) D. (iii) (iv) (v)

20. **The** number of incoming flights **recorded at Jomo** Kenyatta International **airport in certain** months of the year are **recorded below.**

Month	June	July	Aug.	Sep.	Oct.
No. of flights	83	97	103	79	107

Which two consecutive months **recorded the highest** mean of incoming **flights?**

A. August and October
B. July and August
C. June and September
D. September and October

21. **Construct** triangle PQR **in which PQ**=6.7cm QR= 5.8 and **PR= 7.1cm. Bisect** angle QRP and **let the bisector meet** line PQ at M.

What is the size of angle PRM?

A. 40° B. 90°
C. 23° D. 67°

22. What is the value of x in

$$\frac{4(x-3)}{2}+\frac{2(3+x)}{4}=3$$

A. $4\frac{11}{5}$ B. 3

C. 5 D. $2\frac{11}{2}$

23. A packet is in form of a pyramid with rectangular base. Which of the following statements is true about the number of edges and vertices?

A. 8 edges, 5 vertices
B. 5 edges, 8 vertices
C. 9 edges, 6 vertices
D. 6 edges, 9 vertices

24. A company employed 12 people to complete a piece of work in 4 days. After working the first day 3 people did not work again. How many days did the work take to be complete?

A. 4 days B. 6 days
C. $5\frac{1}{3}$ days D. 5 days

25. Which of the following sets of measurement will form a right angled triangle?

A. 0.7cm, 2.4cm, 2.5cm
B. 0.05cm, 0.12cm, 1.3cm
C. 0.8cm, 15cm, 1.7cm
D. 3cm, 0.4cm, 5cm

26. A lorry was loaded with 50 bags of maize, 35 bags of beans and 24 bags of Ndengu. If a bag of maize weighed 90kgs while that of beans weighed 75kg, a bag of Ndengu weighed 60kg. How much was the total mass of the lorry and the load if an empty lorry has a mass of 2.75 tonnes?

A. 8.565 tonnes B. 7.125 tonnes
C. 11.315 tonnes D. 4.5 tonnes

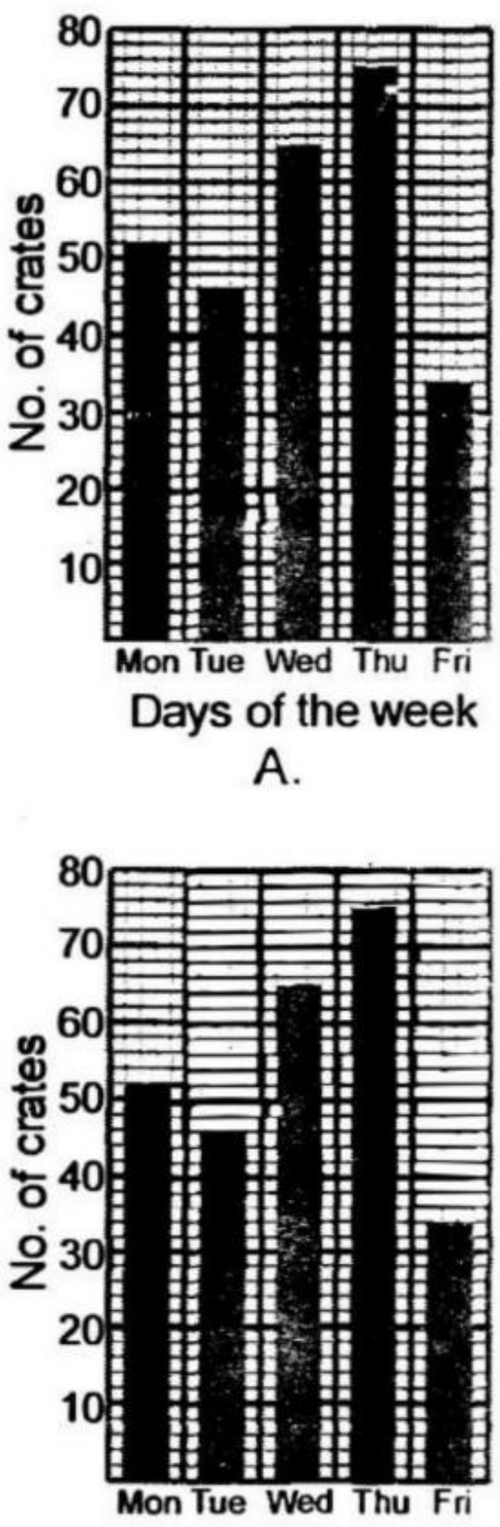
27. Gathuma bought a piece of land for 2 million shillings. He sub-divided the land into twenty five equal plots. He sold each plot at shs. 100,000. What was the percentage profit?

A. 20% B. 40%
C. 50% D. 25%

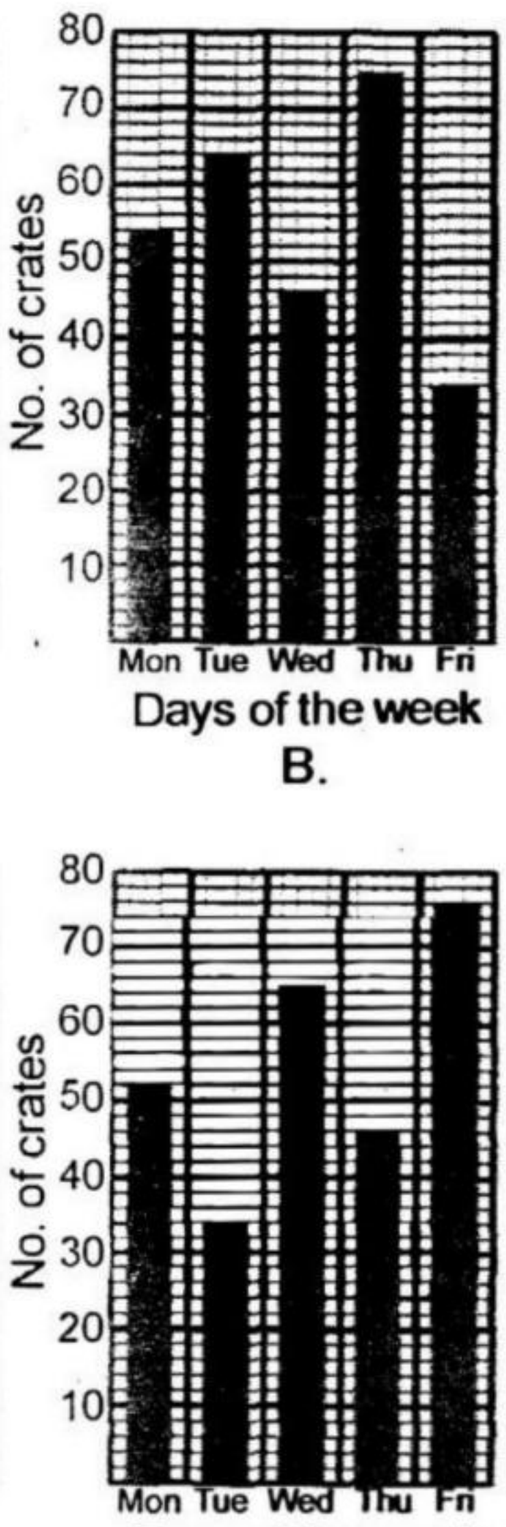
28. The table below shows the number of crates of soda sold by a distributor in one week.

Mon.	Tue.	Wed.	Thu	Fri
52	46	65	75	34

Which bar graph correctly show this information?



A.



B.

C.

D.

29. Jamal deposited 50,000 in a bank that earn 5% simple interest per annum. How much interest was in his account after 1½ years?

A. 53 750shs.
B. 3,750shs.
C. 7,500shs.
D. 57,500shs.

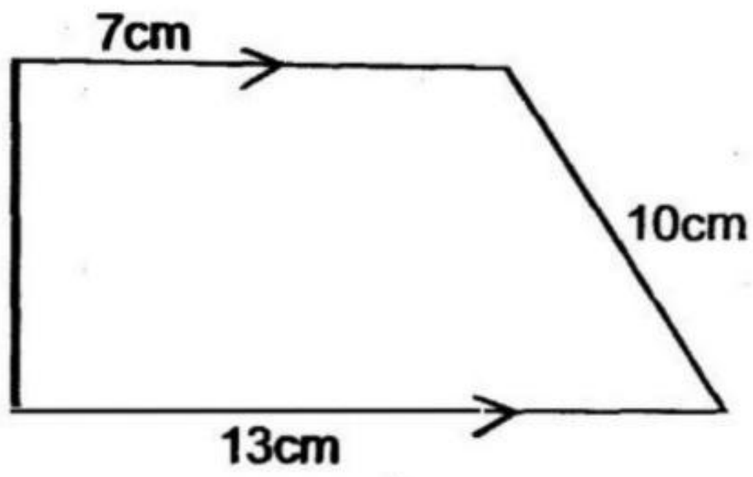
30. During the first lady half marathon on zero campaign 250 men took part. The number of women was three times that of men and 1250 less than that of boys. The number of girls was 200 more than that of boys. How many people in total participated in the function?

A. 2400
B. 5200
C. 1700
D. 4200

31. The cash price of a Generator is 24,000. The hire purchase price is 25% more than cash price. Nanok bought it on hire purchase paying 25% of the hire purchase as the deposit and the rest in 12 equal instalments. How much was each instalment?

A. shs.2,000
B. shs.22,500
C. shs.1 875
D. shs.7,500

32. The figure below shows a trapezium PQRS. Line PQ is parallel to RS. Line PQ= 13cm, line RS=7cm and line QR=10cm.



What is the area of the figure?

A. $80cm^2$
B. $100cm^2$
C. $200cm^2$
D. $160cm^2$

33. What is the value of

$$\frac{3.2 \div 0.8 + 2(0.26 + 3.74)}{3.6 \div 0.9}$$

A. 0.003
B. 0.03
C. 0.3
D. 3

34. A sales lady earns a monthly salary of shs.12500. She is also paid 2.5% on all the sales above 200,000. In one month she sold 25 cartons of books each worth 30,000. How much money did she earn as commission that month?

A. 26 250
B. 18 750
C. 13 750
D. 31 250

35. Four boys Kantet, Mkoko, Owuor and Anyona contributed some money to buy a ball. Anyona contributed x while Mkoto contributed $\frac{1}{3}$ of what Anyona contributed. Owuor contributed sh.200 less than the total for both Anyona and Mkoto. Kantet contributed 100 more than Anyona. If the total amount raised was 2,700, which of the following equation can be used to find the amount raised by each boy?

A. $3x + \frac{2}{3}x + 300 = 2700$

B. $3x + \frac{2}{3}x - 100 = 2700$

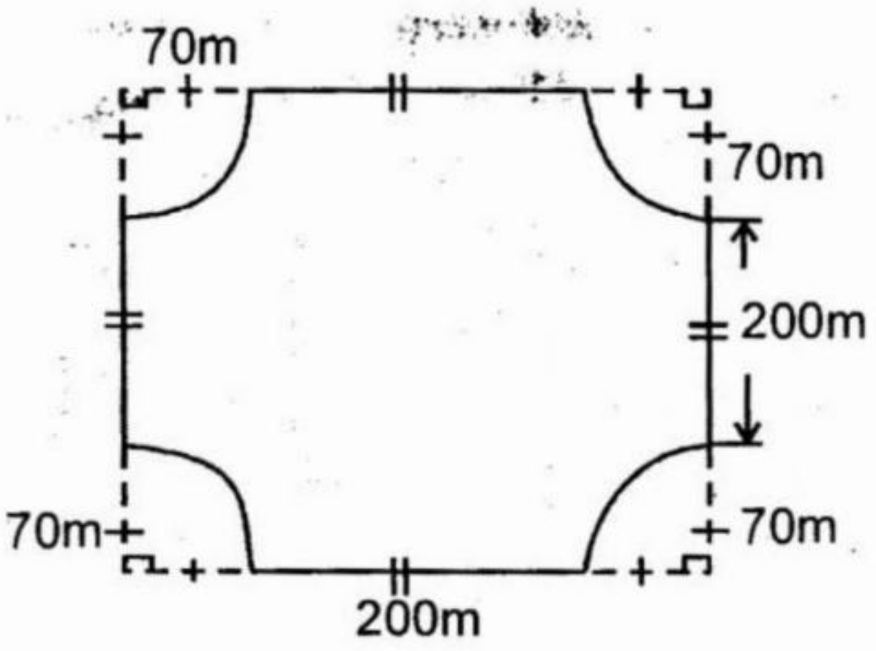
C. $2x + \frac{2}{3}x - 300 = 2700$

D. $2x + \frac{1}{3}x - 100 = 2700$

36. At the beginning of the year 2013, the total number of leopards and Buffalo at Ruma National park was 18,000. 15% of these animals were leopard. At the end of the year the leopard increased by 20% while the antelope reduced by 20% What was the total number of animals at the park by the end of the year?

A. 14 400 B. 12 240
C. 3 240 D. 15 480

37. The diagram below shows Wakaba's plot of land



Calculate the length of the wire needed to fence the land using three strands of wire.

A. 3720m B. 1240m
C. 880m D. 800m

38. The table below shows the number of cars that passed near Waka school in a certain week. Number for Thursday is not shown.

Day	Mon.	Tue.	Wed.	Thur.	Fri.	Sat.
No.of cars	29	33	41	___	47	37

If the mean number of cars was 36, what is the sum of mode and median?

A. 29
B. 64
C. 35
D. 55

39. In a certain factory $\frac{3}{5}$ of the employees are women. On a day when $\frac{3}{20}$ of the women were absent, 306 women were present. How many men are there in the factory?

A. 600
B. 360
C. 54
D. 240

40. The perimeter of a rectangle is 36cm. The width is 4cm less than the length. Calculate twice its area.

A. $77cm^2$
B. $55cm^2$
C. $154cm^2$
D. $110cm^2$

41. A motorist drove for 40min at a speed of 90km/hr from home to town. He took 24min to drive back home. Calculate the average speed for the whole journey.

A. 150km/h
B. 225km/hr
C. 112½km/hr
D. 120km/hr

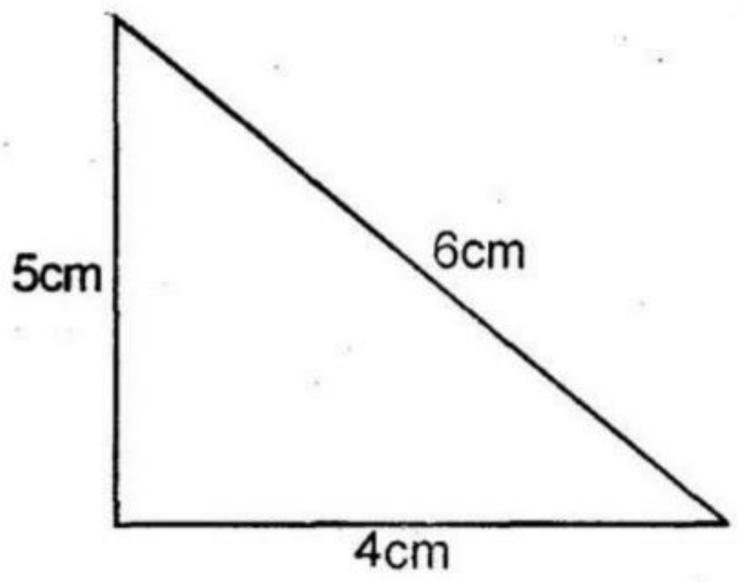
42. Ole Munyere shared a number of cows to his four children. Their shares were Timothy 0.3, Gloria 0.11, Sein 0.19 Naiserian 0.17. If the children got a total of 462 cows, how many cows did he remain with?

A. 138
B. 0.23
C. 600
D. 0.77

43. In a meeting there were 840 attendants. The ratio of men to women was 3:4. Later 60 men left while 60 women joined. What was the new ratio of men to women?

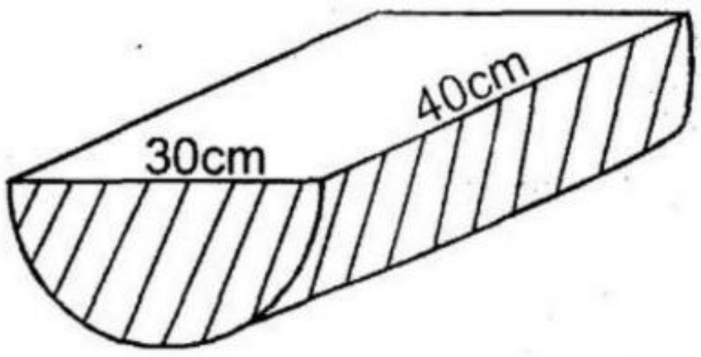
A. 1:1 B. 4:3
C. 9:5 D. 5:9

44. The diagram below shows which type of a triangle?



A. Right angled triangle
B. Scalene
C. Isosceles triangle
D. Equilateral triangle

45. The diagram below shows a wooden solid.



Calculate the surface area taking

$\pi = 3.14$

A. 2590.5cm² B. 1906.5cm²
C. 706.5cm² D. 3790.5cm²

46. Duale's watch loses 15sec every hour. The watch was set right on Monday 8:30am. What time did it show on Friday the same week when the correct time was 8:30a.m?

A. 8:54am
B. 8:54pm
C. 8:06am
D. 8:06pm

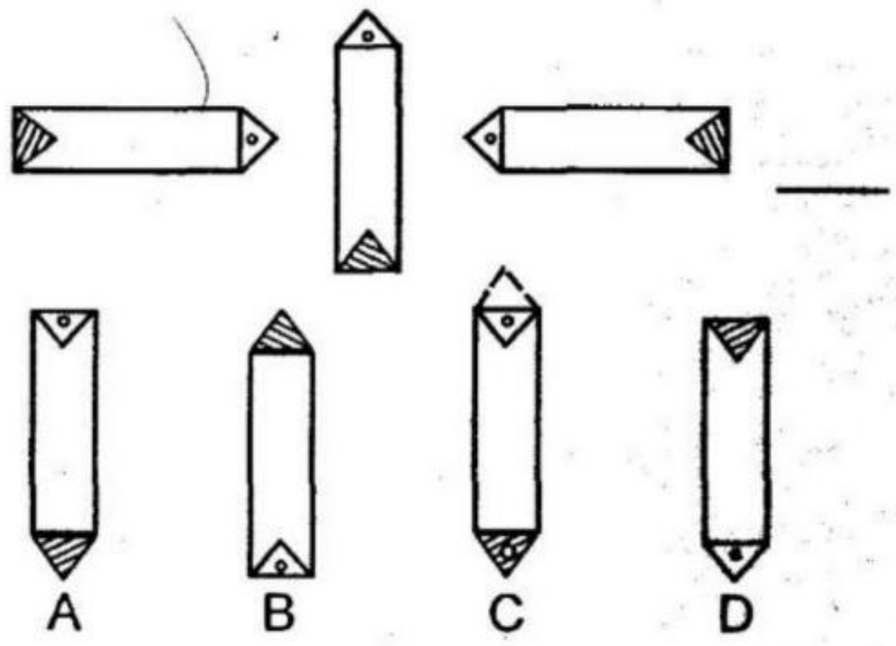
47. A triangular plot of land measures 75m by 125m by 150m is to be fenced. The posts are to be 2.5m apart. How many posts are required?

A. 141
B. 15
C. 14
D. 140

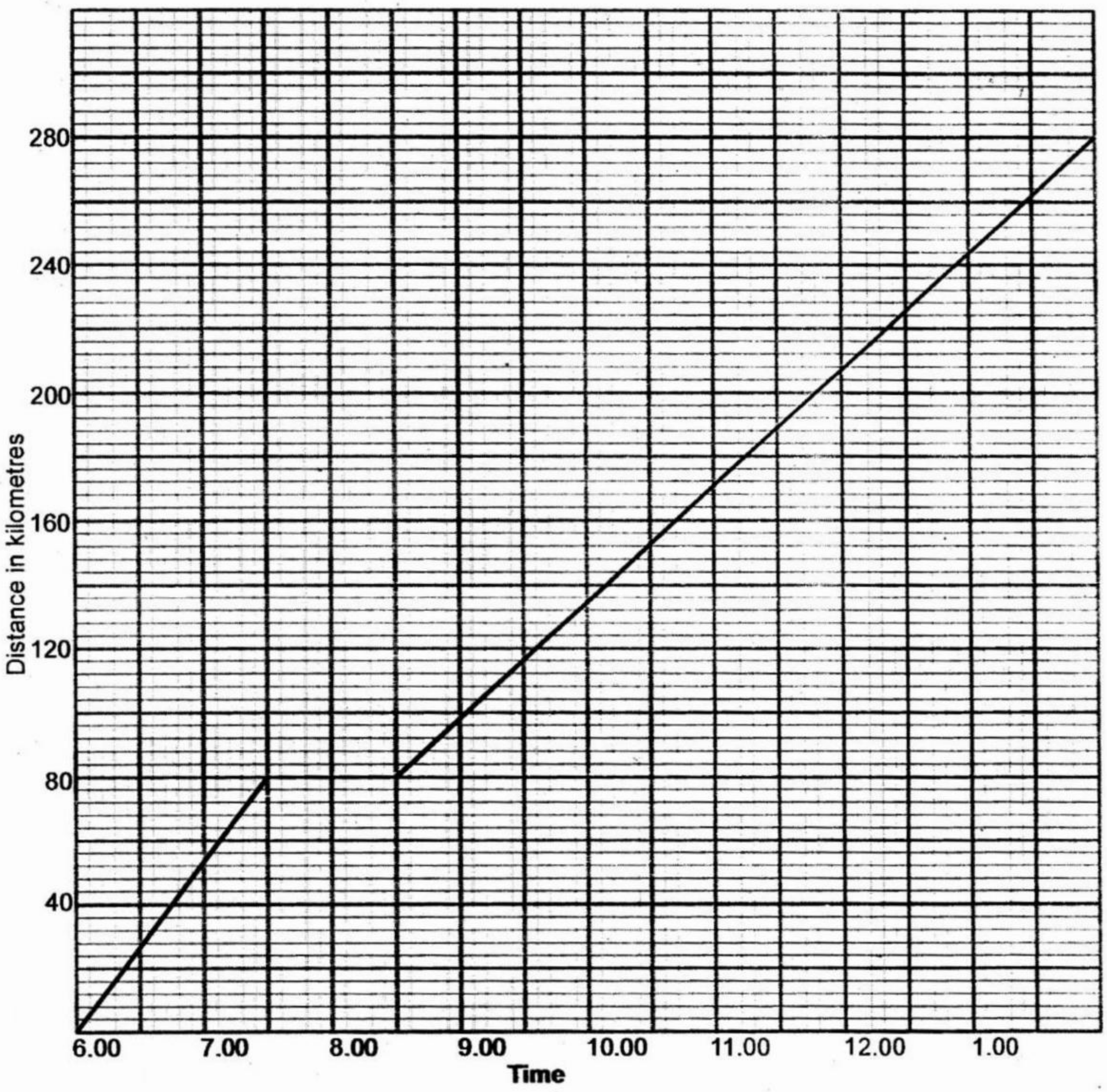
48. Sathya Sair School received 120 cartons of milk. Each carton contain 21 - 2dl packets of milk. How many litres of milk were received by the school?

A. 504 litres
B. 5040 litres
C. 252 litres
D. 2520 litres

49. Which of the following shapes will be the next in the pattern?



50. The graph below shows a part of Nyaga's Journey from Tharaka Nithi to Nyahururu a distance of 280km. After driving for 1½ hrs his vehicles.broke down and took one hour to repair.



What was his speed after repairing the car?

A. $16\frac{8}{17}$km/hr

B. 25km/hr

C. 40km/hr

D. $12\frac{1}{2}$km/hr