KIRINYAGA COUNTY
STD 7 - TERM 3
MATHEMATICS

PENPLUS KIRINYAGA

READ THESE INSTRUCTIONS CAREFULLY

Time: 2 Hrs

1. *Use only an ordinary pencil.*
2. *Make sure that you have written on the answer sheet:-*
   (I) YOUR NAME   *(II) NAME OF YOUR SCHOOL*
3. *For each question show the correct answer by drawing line in the brackets in which the letter you have chosen is written.*

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1. Which one of the following is five million, six hundred and forty nine thousand, three hundred and one in figures?
   A. 5649301   B. 564931
   C. 500649301   D. 50649301

2. What is the place value of digit 8 in the number 208154?
   A. Eight thousands   B. Eight hundreds
   C. Hundreds   D. Thousands

3. How many days are there from 12th February to 10th March in the year 2004?
   A. 27 days   B. 28 days
   C. 29 days   D. 30 days

4. Round off 6215.005 to one decimal place.
   A. 6215   B. 621.5
   C. 6215.1   D. 6215.0

5. What is the value of $5(2^2 + 3^2)$?
   A. 325   B. 50   C. 125   D. 65

6. Terry bought the following items from a shop:
   2kg sugar @ Shs 50
   2 kg maize flour for Sh 120
   2 bars of soap at Shs 70 per bar
   Terry paid using a five hundred shillings note. How much balance did she receive?
   A. Shs 360   B. Shs 140
   C. Shs 20   D. Shs 480

7. In the diagram below, line **JK = KL = LM**, angle **JKL = 40⁰**. What is the size of angle **KLM**?

   A. 110⁰
   B. 70⁰
   C. 40⁰
   D. 80⁰

8. What is the square of 2½?
   A. 6¼   B. 4¼   C. 3¹/₈   D. 8¹/₃

9. What is the next number in the sequence?
   5, 8, 14, 23, 35, _____
   A. 47   B. 44   C. 50   D. 53

10. What is the simplified form of $6x + ¼(8x − 24y)$?
    A. 4x − 6y   B. 8x + 6y
    C. 8x − 6y   D. 14x − 6y

11. The table below is a bus timetable from towns K to P.

Town	Arrival	Departure
K		10.00 am
L	11.15 am	11.30 am
M	12.15 pm	12.25 pm
N	1.10 pm	1.20 pm
O	1.50 pm	2.00 pm
P	2.10 pm	3.00 pm

    How long did the bus take to travel from town K to M?
    A. 2½ hours   B. 1¼ hours
    C. 2¼ hours   D. 1½ hours

12. The area of a rectangular plot is 2800m². If its width is 40m, what is its perimeter?
    A. 140m   B. 160m
    C. 490m   D. 220m

13. Draw a triangle **ABC** such that lines **AB = BC = CA = 6cm**. Measure angle **ABC**.
    A. 60⁰   B. 55⁰
    C. 95⁰   D. 125⁰

14. What is the value of:- ²/₅ of 1²/₃ ÷ ¾
    A. ⁸/₂₅   B. ½
    C. ⁹/₅₀   D. ⁸/₉

15. Kiunyu bought a wheelbarrow whose marked price was Sh 15000. If he was allowed a discount of 15%, how much did he pay for it?
   A. Sh 17250   B. Sh 12750
   C. Sh 13750   D. Sh 12250

16. Kinandi left home at 7.30 am and walked to school. He reached school at 10.30 am, how long did he take?
   A. 4 hours
   B. 4 hours 30.mins
   C. 3 hours 30 min
   D. 3 hours

17. A school tank holds 600 litres of water. During a sports day, 0.4 of the water was used. The following day 0.35 was used for irrigation purposes. How much water remained in the tank?
   A. 150 l B. 450 l
   C. 300 l.   D. 420 l

18. The fractions $^2/_3$, $^1/_2$, $^5/_6$, $^1/_4$ are to be arranged from the smallest to the largest. Which one of the following is the correct order?
   A. $^1/_4$, $^5/_6$, $^1/_2$, $^2/_3$
   B. $^5/_6$, $^2/_3$, $^1/_2$, $^1/_4$
   C. $^1/_4$, $^1/_2$, $^2/_3$, $^5/_6$
   D. $^2/_3$, $^1/_2$, $^5/_6$, $^1/_4$

19. The following are properties of a certain quadrilateral.
   (i) All angles are right angles
   (ii) All sides are equal
   (iii) The two diagonals are equal
   The quadrilateral is a _____
   A. rectangle
   B. trapezium
   C. square
   D. parallelogram

20. The mean monthly rainfall for six months was as follows.

Months	Amount of rainfall
April	500mm
May	600mm
June	400mm
July	300mm
August	900mm
September	700mm

In which two consecutive months was the rainfall lowest?
   A. May and June
   B. June and July
   C. July and August
   D. August and September

21. Construct triangle XYZ in which angle ZXY is 90⁰, lines YZ = 5cm and XZ = 3cm. What is the measure of line XY?
   A. 3 cm
   B. 4 cm
   C. 5 cm
   D. 6 cm

22. What is the value of x in the equation
   $3(2x + 1) + 5(x + 4) = 67$?
   A. 12
   B. 87
   C. 90
   D. 4

23. Which of the following is not a property of an equilateral triangle?
   A. Base angles are equal
   B. All sides are equal
   C. Interior angles sum upto 180⁰
   D. All angles are equal

24. A cyclist covers a distance of 40km in $^2/_3$ of an hour. What is his speed in kilometres per hour?
   A. 120km/hr
   B. 30 km/hr
   C. $26^2/_3$ hours
   D. 60km/hr

25. Which one of the following measurements will form a right angled triangle?
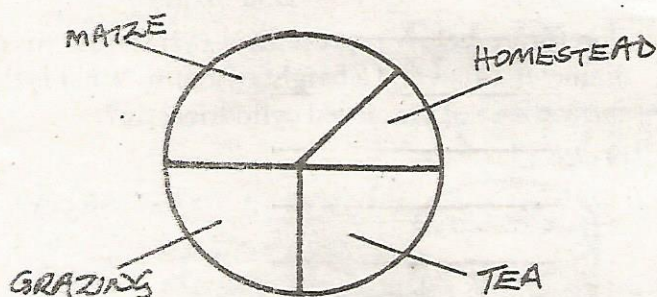   A. 15:20:25 cm
   B. 9:12:16 cm
   C. 5:12:17 cm
   D. 6:8:12 cm

26. A lorry carried 200 bags of maize . Each bag had a mass of 90kg. How many tonnes of maize were in the lorry?
   A. 180 tonnes
   B. 18 tonnes
   C. 1800 tonnes
   D. 18000 tonnes

27. Mama mboga bought 120 tomatoes for Sh 360. She later sold the tomatoes in piles of 3 tomatoes at Sh 10 per pile. How much profit did she make?
   A. Shs 1080
   B. Shs 40
   C. Sh 400
   D. Shs 1200

28. The pie chart below shows how Kimani used his 6 hectares piece of land.

Homestead ¾ ha

Maize cultivation 2¼ ha

Grazing 1½ ha

Tea cultivation 1½ ha

What angle will represent the land used for maize cultivation?

A. 125⁰   B. 145⁰

C. 135⁰   D. 45⁰

29. Timothy deposited Sh 10,000 in a bank that paid simple interest at the rate of 12% per annum. How much interest did he get at the end of two years?

A. Shs 1200

B. Shs 12400

C. Shs 11200

D. Shs 2400

30. In a school there are girls, boys and teachers. The number of girls is 300. The number of boys are half the number of girls. The number of teachers are $^1/_{10}$ of the boys. What is the total number of people in the school?

A. 450   B. 150

C. 465   D. 15

31. The hire purchase price of a bicycle was Sh 4500. The hire purchase price included a deposit of Sh 2000 and equal monthly instalments of Sh 500 each. For how many months will the instalments be paid?

A. 5   B. 6

C. 9   D. 4

32. A rectangle 25cm long 12cm wide has the same area as a triangle whose base is 60cm. What is the height of the triangle?

A. 30cm   B. 15cm

C. 5 cm   D. 10 cm

33. What is the value of:

0.77 + 5.00 + 0.88 x 4

A. 26.60   B. 9.29

C. 6.65   D. 8.52

34. A sales man is paid a salary of Sh 8000 every month and 10% commission on all the sales made. In one month, he sold goods worth Sh 100,000. How much did he earn that month?

A. Sh 8000   B. Sh 18000

C. Sh 10000   D. Sh 12000

35. The scale on a map is 1:500000. What is the actual length in km on the ground of a distance of 5cm on the map?

A. 50 km   B. 2.5 km

C. 25 km   D. 5 km

36. Ali bought 7 books. Five of the books cost him Sh y each and the rest cost him Sh x each. How much did Ali spend on the books?

A. Sh (5y + 2x)   B. Sh 7(5y + 2x)

C. Sh 7y + 7x   D. Sh 7xy

37. In a school 45% of the pupils were girls. How many boys were in the school if the total number of the pupils were 700?

A. 315   B. 55

C. 385   D. 400

38. The height of an isosceles triangle is 4cm. If it has a base length of 18cm, what is its area?
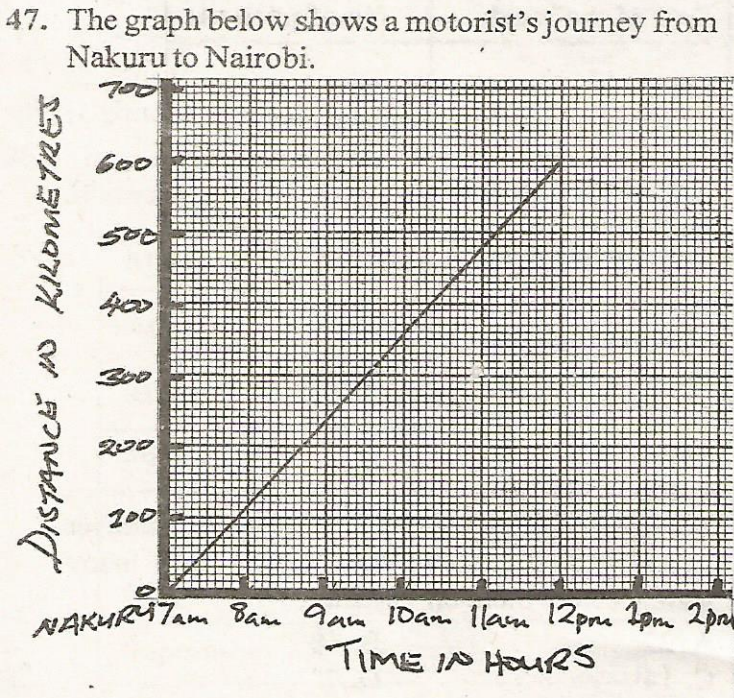
A. 36cm²   B. 36cm

C. 72 cm²   D. 72cm

39. The table below shows HIV/AIDS patients who visited Njabini Health Centre in one week.

Day of the week	No of patients
Mon	9
Tue	_____
Wed	10
Thur	11
Fri	8
Sat	_____

If 52 patients attended and there were equal number of patients on Tuesday and Saturday, how many patients were there on Tuesday?
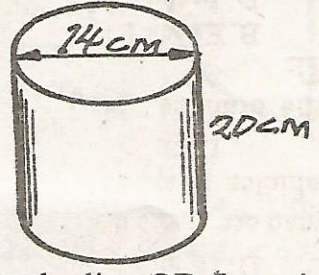
A. 22   B. 38

C. 14   D. 7

40. A farmer had cows, goats and sheep. ½ of the animals were cows $^2/_5$ were goats and the rest were sheep. What fraction were sheep?

A. $^3/_5$ B. $^1/_{10}$ C. ½   D. $^9/_{10}$

41. The perimeter of a rectangle is 50cm. If its length is 7cm, what is its length?

A. 8cm   B. 36cm   C. 18cm   D. 25 cm

42. A car took 2 hours to travel a distance of 144 km. What was its speed in metres per second?

A. 20 m/sec B. 40 m/sec C. 72 m/sec D. 36 m/sec

43. A father shared Sh 8000 among his four sons as follows: 0.2, 0.3, 0.1 and 0.2. How much did he remain with?

A. Sh 3200   B. Sh 2400
C. Sh 800   D. Shs 1600

44. A farmer harvested 200 bags of maize in the year 2000. In the year 2001, the yield increased in the ration of 5:2. How many bags did he harvest in the year 2001?

A. 350   B. 400   C. 250   D. 500

45. A rectangular container measures 100cm by 10cm by 10cm. The container is to be filled with water using a smaller container measuring 10cm by 10cm by 10cm. How many such small containers would fill the larger container?

A. 100   B. 10   C. 20   D. 15

46. Jane started working in the shamba at 8.30 am. After working for 5 hrs 20 min she stopped and went home. At what time did she stop working?

A. 1.50 am   B. 2.50 am
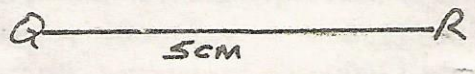C. 1.50 pm   D. 12.50 am

47. The graph below shows a motorist's journey from Nakuru to Nairobi.

At what time had he covered 250km?

A. 10.30 am   B. 9.00 am
C. 9.30 am   D. 8.30 am

48. The figure below represents a cylindrical tin of diameter 14cm and a height of 20cm. What is the surface area of the closed cylindrical tin?
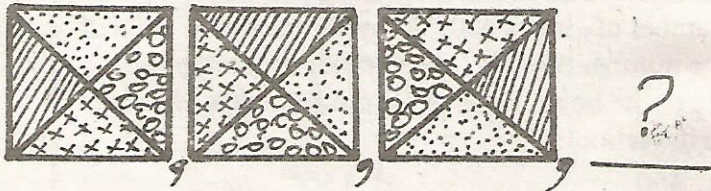
(Take $\Pi = ^{22}/_7$)

A. 1188 cm²
B. 1760 cm²
C. 1914 cm²
D. 880 cm²

49. On the line QR 5cm given below, construct a triangle PQR such that PQ = PR = 6cm. What is the size of angle PRQ?

A. 75⁰   B. 65⁰   C. 95⁰   D. 115⁰

50. The figure below shows a pattern of shapes.

Which one of the shapes below should be drawn in the blank box to continue with the pattern?