

MATHEMATICS

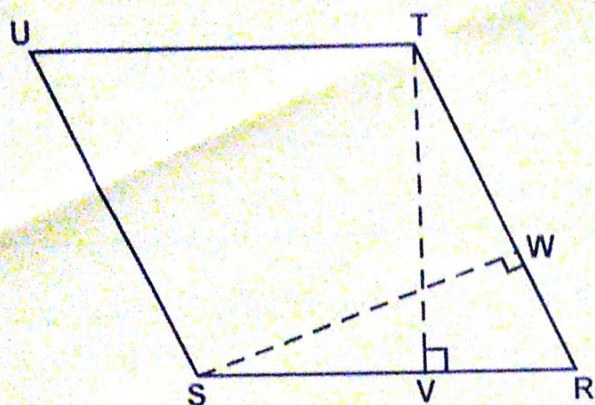
Time: 2 Hrs

READ THESE INSTRUCTIONS CAREFULLY

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

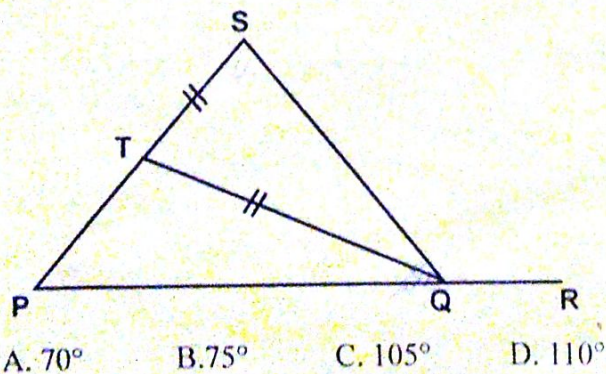
1. Which of the following is two million two hundred thousand less sixty thousand five hundred and twenty eight in figures ?
A. 60528 B. 2260528
C. 2193472 D. 2139472
2. How many groups of hundreds are there in the value of three in the number 53609 ?
A. 3000 B. 300 C. 30,000 D. 30
3. What is the value of: $\frac{0.5 + 0.2 \times 4.1 - 0.31}{0.02}$
A. 50.5 B. 60
C. 128 D. 132.65
4. What is the sum of the next two numbers in the pattern? 111, 91, 73, 57, 43, 31, _____, _____
A. 21 B. 13 C. 74 D. 34
5. What is the value of: $7 \times 3 + 4(11 - 2^2)$?
A. 175 B. 61 C. 51 D. 49
6. Construct triangle PQR such that QR = 6cm, angle PQR is a right angle and line PR = 8cm. Construct a circle that passes through vertices of the triangle. What is the diameter of the circle?
A. 3.2cm B. 4.2cm
C. 6.4cm D. 8cm
7. What is the value of: $\frac{5}{8} + \frac{1}{8} \div \frac{2}{3} - \frac{3}{8}$
A. $\frac{1}{3}$ B. $\frac{7}{16}$ C. $\frac{3}{4}$ D. $1\frac{3}{56}$
8. Linda bought the following items from a shop
3 loaves of bread @ sh.45
 $1\frac{3}{4}$ kg of sugar @ sh.120
2 packets of flour for sh. 180
2 packets of tea leaves for sh.90
 $\frac{1}{3}$ kg meat for sh.200
If she paid for the items using two five hundred shilling notes, how much balance did she get?
A. Sh.815 B. Sh.715
C. Sh.185 D. Sh.285
9. What is 5.59994 rounded off to 3 decimal places?
A. 5.599 B. 5.6 C. 5.60 D. 5.600
10. What is the difference in value between the LCM of 8 and 12 and the HCF of 36 and 54?
A. 6 B. 14 C. 50 D. 84
11. The mean of 8 numbers is 6. Seven of the numbers are 5, 3, 2, 6, 7, 8 and 9. What is the median of the numbers?
A. 8 B. 7 C. 6.5 D. 6
12. A rectangular piece of land of length 20m has a diagonal of 25m. What is the width of the rectangle?
A. 45 B. 150 C. 90 D. 15
13. Evaluate: $\frac{2b + c^2 - 1}{9 + \frac{1}{2}a}$
Given that $a = 2$, $b = c + 3$, $c = 9 + 3$
A. $4\frac{2}{3}$ B. $6\frac{2}{3}$ C. 17.3 D. 8
14. A farmer used $\frac{1}{3}$ of her land for planting wheat, $\frac{1}{6}$ for homestead, $\frac{1}{10}$ for horticulture and the remainder for grazing. If the area for grazing was 216m², what was the area for homestead?
A. 540m B. 180m C. 90m D. 54m
15. A map was drawn using the scale 1: 250000. What distance did a line 2.5cm on the map represent?
A. 0.625km B. 6.25km
C. 62.5km D. 625km
16. Mumo paid for a blouse sh.720 after getting a 10% discount. Calculate the marked price of the blouse?
A. Sh.72 B. Sh.80
C. Sh.792 D. Sh.800

17. In the figure below SRTU is a parallelogram with $RT = 20\text{cm}$, $SR = 30\text{cm}$ and $SW = 24\text{cm}$.



Calculate the area of the parallelogram?

- A. 360cm^2 B. 480cm^2
C. 600cm^2 D. 720cm^2
18. The fractions $\frac{5}{8}$, $\frac{3}{4}$, $\frac{1}{2}$, $\frac{2}{5}$ are to be arranged in ascending order. Which fraction will be third?
A. $\frac{5}{8}$ B. $\frac{3}{4}$ C. $\frac{1}{2}$ D. $\frac{2}{5}$
19. In the figure below PQR and PTS are straight lines. Line $PQ = QT = TS$ and $\angle QPT = 70^\circ$. What is the measure of angle SQR?



- A. 70° B. 75° C. 105° D. 110°
20. A container had 0.05m^3 of juice. All the juice was shared among Std.8 pupils who were 50 in number. How many millilitres of juice did each pupil get?
A. 1000ml B. 500ml C. 100ml D. 1 ml
21. What is the product of the faces and the vertices of an open cuboid?
A. 40 B. 48 C. 60 D. 72
22. In the year 2012 Juma bought a half litre of milk every day at sh.20. How much money did he spend in buying milk in the months of January to April?

- A. Sh.2420 B. Sh.2400
C. Sh.1210 D. Sh.620

23. The ratio of boys to girls in a school is 5: 3. If there are 160 more boys than girls, how many girls are there in the school?
A. 640 B. 400 C. 240 D. 60

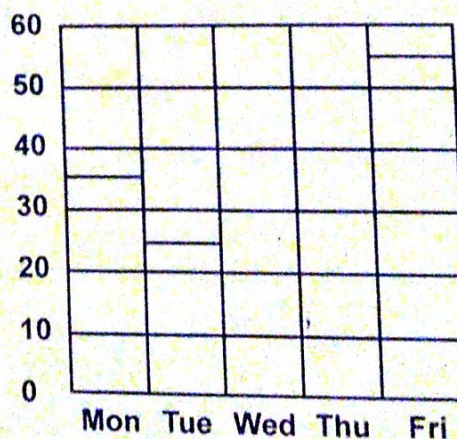
24. The following are commission charges for money orders.

Value of order (sh)	Commission (sh)
0-500	235
501 - 2000	425
2001 - 4000	515
4001 - 6000	645
6001 - 8000	755
8001 -10,000	825

Omandi sent a money order of sh.3500 to his son and another one of sh.6400 to his daughter. How much would he have saved if he had sent the money using one money order?

- A. Sh.445 B. Sh.825
C. Sh.1270 D. Sh.2095

25. The bar graph below shows the number of kilograms of sugar consumed by a school in five days.



Which pair of consecutive days was the total consumption highest?

- A. Wed and Fri B. Tue and Wed
C. Thur and Fri D. Wed and Thur

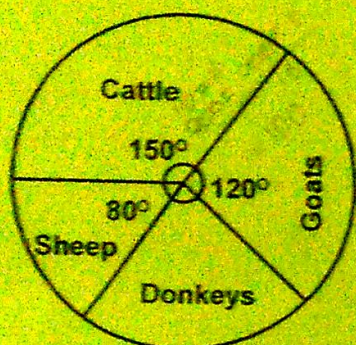
26. What is the value of x in the equation?

$$\frac{1}{3}(2x - 9) = 7$$

- A. 24 B. 15 C. 8 D. 6

27. A salesman got a salary of sh.8000 plus 6% commission of the value of goods sold above sh. 10,000. In one month, he sold goods worth sh.40000. Calculate his total earning that month?
- A. Sh.2400 B. Sh. 10400
C. Sh.1800 D. Sh.9800

28. The circle graph below shows the number of animals in a farm. There are 5 donkeys in the farm. What is the total number of sheep and goats in the farm?

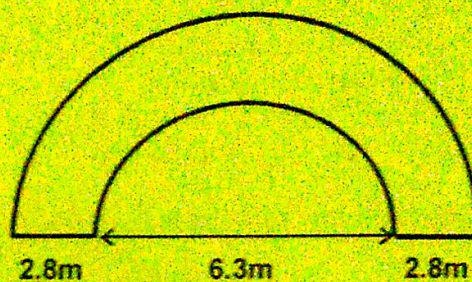


- A. 40 B. 60
C. 100 D. 200
29. A meeting which was supposed to start at 10.45a.m started twenty minutes late. At what time did the meeting end if it took 4 hours 30 minutes?
- A. 3.15p.m B. 4.15p.m
C. 4.35p.m D. 3.35p.m

30. A circular water tank has a diameter of 2.8m and a height of 300cm. How many litres of water will the tank hold when it is half full?
- A. 9.24 B. 9240
C. 18480 D. 36900

31. Which of the following is a property of a rhombus?
- A. Diagonals are equal
B. Opposite angles add upto 180°
C. Diagonals bisect angles
D. Co-interior angles are equal in size

32. The figure below represents a lawn. The law is to be fenced all round using three strands of wire. What length of wire is required in metres?



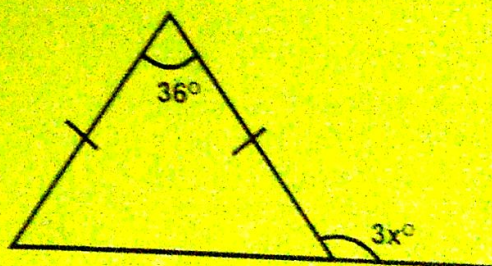
- A. 34.21 B. 85.8 C. 102.6 D. 188.4
33. Jane had p sweets. Juma had 3 sweets more than Jane. John had 6 sweets less than what Jane and Juma had. How many sweets did Juma and John have altogether?
- A. $3p$ B. $3p+3$ C. $3p-3$ D. $2p+3$

34. Below is a bus timetable.

Station	M	N	O	P	Q	R
Arrival time		9.15a.m	10.20a.m	11.15a.m	12.10p.m	1.15p.m
Departure	8.30a.m	9.40a.m	10.35a.m	11.45a.m	12.30p.m	1.40p.m

How long did the bus take to travel from town O to R?

- A. 3hrs 20min B. 3hrs 5min
C. 2hrs 55min D. 2hrs 40min
35. A rectangular piece of land measures 120m long by 80m wide. What is the area of the piece of land in Ares?
- A. 9600 B. 4800 C. 96 D. 9.6
36. Find the value of X in the triangle below.



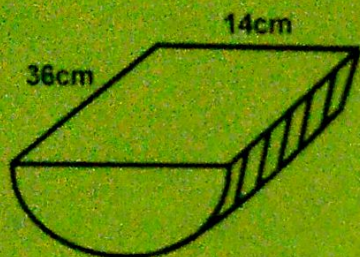
- A. 36° B. 108° C. 72° D. 30°
37. A certain powder is packed in 250g packets. How many such packets will weigh 2t 50kg?
- A. 8.2 B. 820 C. 8200 D. 82000
38. In a car park there were 2000 cars. Out of these 0.183 were blue cars, 0.392 were yellow cars and the rest were white cars. How many white cars were there?
- A. 1634 B. 850 C. 784 D. 366

39. Three men can do a certain job in 7 days. How many men can do the same job in 4 less days?
A. 21 B. 9 C. 4 D. 7

40. By selling an item at sh. 450, Ali makes a loss of 10%. How much should he sell the item in order to make a profit of 20%?

A. Sh. 600 B. Sh. 594
C. Sh. 500 D. Sh. 400

1. The diagram below shows a feeding trough.



Find its surface area in square centimeter?

A. 869 B. 946 C. 1450 D. 2772

42. The population in a secondary school increased by 600 pupils to become 1400.

What was the percentage increase?

A. 133.3% B. 75% C. 57.1% D. 42.9%

43. Mbadi left town A at 10.15 a.m for town B 385 km away. He drove at an average speed of 110 km/h. At what time did he reach town B?

A. 3.40 p.m B. 1.45 p.m
C. 1.35 p.m D. 13.35 p.m

44. A bank charged interest at the rate of 10% per annum. Ornolo borrowed sh. 2400 from his bank and repaid the loan plus interest at the end of 9 months. How much did he say?

A. Sh. 4560 B. Sh. 2640
C. Sh. 2580 D. Sh. 2400

45. In a game park there were gazelles, monkeys, hyenas and giraffes. The number of hyenas was 862 which was 516 more than that of giraffes and 189 less than that of monkeys. The total number of animals in the park was 5168. How many gazelles were in the park?

A. 3601 B. 2909 C. 2259 D. 1877

46. The hire purchase price of an oven cooker is sh. 57500. Omondi paid sh. 10000 as monthly instalments for five months. How much did he pay as deposit?

A. Sh. 50000 B. Sh. 42500
C. Sh. 7500 D. Sh. 575

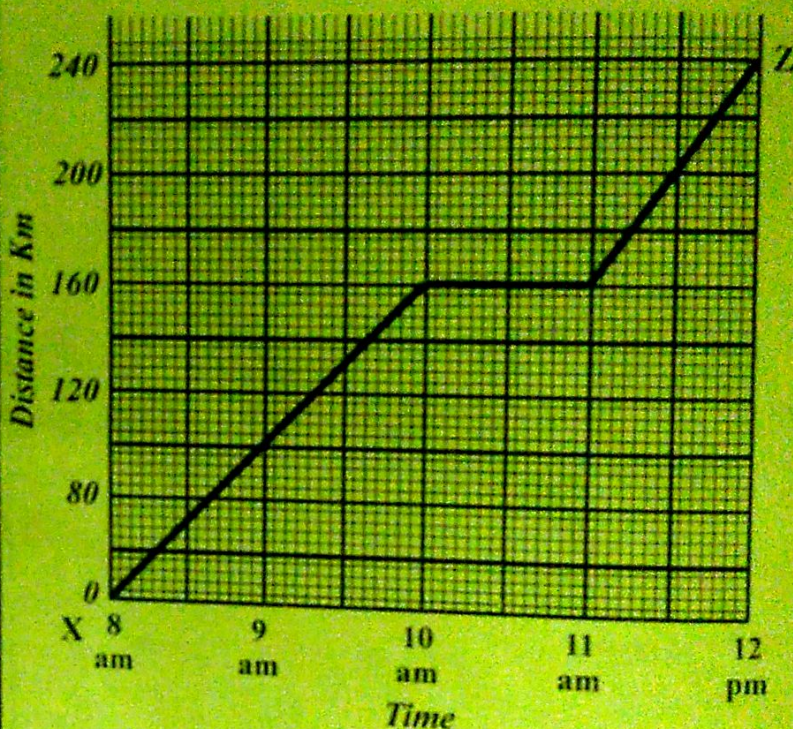
47. Simplify the inequality: $6(2x - 1) + 4(x + 1) > 30$

A. $x > 15$ B. $x < 2$ C. $x > 2$ D. $x > 120$

48. Construct triangle EFG with EF = 6.2 cm, angle EFG = 60° and angle FEG = 40° . Draw a perpendicular from G to meet EF at H. What is the measure of line EH?
Find its surface area in square centimetre?

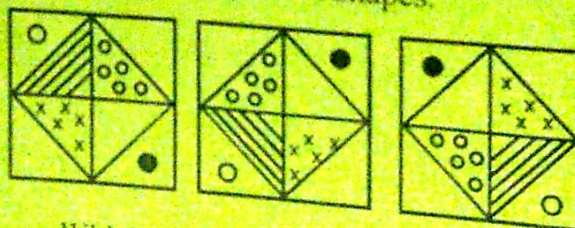
A. 869 B. 946 C. 1450 D. 2772

49. The graph below shows a cyclist journey from town X to Z. What was the average speed for the whole journey if he rested between 10 a.m to 11 a.m?



A. 48 km/h B. 60 km/h
C. 72 km/h D. 80 km/h

50. Below is a pattern of shapes.



?

Which one of the following is the next shape in the pattern?

