SCHOOL BASED EVALUATION TEST
STANDARD EIGHT YEAR - 2020
MATHEMATICS (73314403)

Crown of Excellence

READ THESE INSTRUCTIONS CAREFULLY

1 Use an ordinary pencil only.

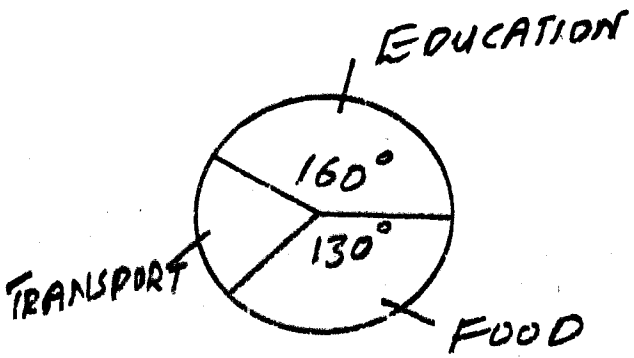
2. Make sure that you have written on the answer sheet.

I. YOUR NAME

II. NAME OF YOUR SCHOOL

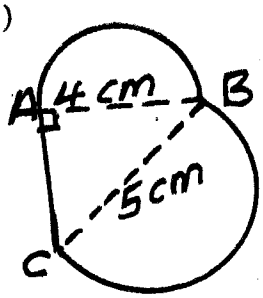
Time: 2 Hours

1. Write four hundred and eight million seven hundred and sixteen thousand and twenty in symbols.
   A. 408701620 B. 480716200
   C. 4087016020 D. 408716020
2. Arrange the following fractions in descending order: $^2/_3$, $^3/_8$, $^1/_2$, $^2/_5$
   A. $^3/_8$, $^2/_5$, $^1/_2$, $^2/_3$ B. $^2/_3$, $^1/_2$, $^2/_5$, $^3/_8$
   C. $^2/_3$, $^2/_5$, $^3/_8$, $^1/_2$ D. $^3/_8$, $^2/_5$, $^2/_3$, $^1/_2$
3. Four parcels weighed 537 g, 2.349 kg, $3^1/_2$ kg, $1^3/_4$ kg. What is their total mass in kilograms?
   A. 8.136 B. 7.136 C. 8.126 D. 8.036
4. A square matchbox which is open on one end measures 500 cm. What is its total surface area in metres?
   A. 150 B. 125 000000
   C. 125 D. 250000
5. It took 12 men 6 months to dig an underground water tunnel towards a bank. How long would it take 8 men to dig the same water tunnel?
   A. 4 B. 12 C. 8 D. 9
6. What is the value of:
   $3^2/_5 - 2^1/_4 \times 1^1/_3 + {}^{1/6 \text{ of}} 1^5/_7$
   A. $^4/_{35}$ B. $^{24}/_{35}$ C. $2^{32}/_{35}$ D. $3^{24}/_{35}$
7. A cylindrical tank has a radius of 1.4 m. If the height of the tank is 10 m. What is the capacity of quarter the tank in litres?
   A. 61.6 B. 616000
   C. 61600 D. 616
8. During nominations in Murang'a county there was a total of 838 408 votes, to be casted. Four candidate, competed for the women representative seat where candidate A got 202149 vote. Candidate B got 79602 more than A. Candidate C got half of what A and B got while candidate D got a third of 124008 votes. 112 votes got spoilt. How many votes were not casted?
   A. 71222 B. 71220
   C. 71110 D. 71210
9. Which of the following is not a property of a rhombus?
   A. It has one pair of parallel lines
   B. Opposite angels are equal
   C. All the sides are equal
   D. Interior angle, add upto 360^0
10. ***The pie chart below shows how Kilonzo spent his salary.***



If his salary is sh 18000, how much more did he spend on education than on transport?
   A. sh 8000
   B. sh 11500
   C. sh 3500
   D. sh 4500
11. Eighty cuboids, each 3.5 cm thick, were placed side by side on a shelf. If the shelf was filled with cubes what was the length of the shelf in metres?
   A. 280 m B. 2.18 m
   C. 2.8 m D. 100 m
12. What is the value of: $664 \div 8 + 3\ (18 - 6)$?
   A. 98 B. 119
   C. 1032 D. 155

13. What is the distance round the shape below. If line AB is 4 cm and line BC is 5 cm? (Use $\pi = 3.14$)

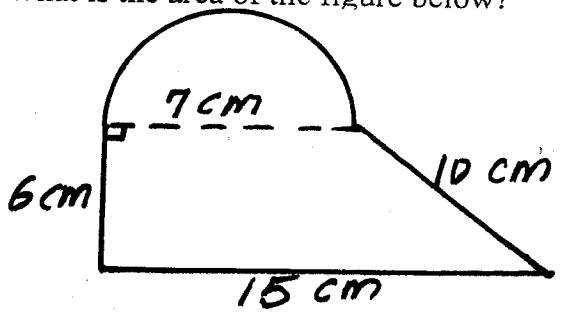


A. 12 cm . 14.13 cm
C. 17.13 cm D. 19.0925 cm

14. A bus carried 30 passengers per trip. In one day, the bus made 4 trips. How much money did the bus make in the month of February 2014, if each passenger paid sh 80 per trip?
A. 9600 B. 278400
C. 288000 D. 268800

15. Construct triangle XYZ such that XYZ = 45^0 and lines XY = 8 cm and YZ = 6 cm. Draw a circle that passes through the points X, Y and Z. What is the diameter of the circle?
A. 8 cm B. 4 cm
C. 6 cm D. 10 cm

16. What is the area of the figure below?



A. 61.25 cm^2 B. 85.25 cm^2
C. 104.5 cm^2 D. 79.25 cm^2

17. In Maraga primary school, $^2/_5$ of the pupils are girls. On a day when $^1/_{10}$ of the girls were absent, 180 girls were present. How many boys are their in the school?
A. 108 B. 200
C. 300 D. 500

18. What is the value of y in the equation:
$\frac{5y - 3}{4} - 1^3/_4 = 2^1/_2$
A. 4 B. 1
C. 0 D. $2^{19}/_{20}$

19. Find the difference of the HCF of 30 and 15 and the LCM of 6, 20 and 15.
A. 90 B. 75
C. 300 D. 45

20. What is the value of: $4^2 \times \sqrt{2.56}$
A. 256 B. 25.6
C. 3.2 D. 10.24

21. The area of an isosceles triangle is 150 cm^2. Its height is 15 cm. What is the measure of each of the two equal sides of the triangle?
A. 40 cm B. 20 cm
C. 25 cm D. 10 cm

22. A rectangular container measures 3 m by 2 m by 150 cm. The container is completely filled with 0.25 m long cubic packets. How many such packets are needed to fill the container?
A. 576 B. 12
C. 288 D. 36

23. Musa bought the following items from a shop.

One 2 kg tin of cooking fat @ sh 365
2 loaves of bread @ sh 48
Three packets of unga @ sh 115
Four half - litres packets of milk @ sh 32

The shopkeeper did not have exact balance. How much more should Musa give to the shopkeeper in order to get a balance of sh 100?
A. sh 934 B. sh 34
C. sh 66 D. sh 4

24. What is the value of (3y + 4b) - (2y + b)? given that b = 6 and y = 10
A. 80 B. 40
C. 38 D. 28

25. A baby slept at 2000 h. It woke up after 8 hours and 15 minutes later. At what time did it wake up in am/pm system?
A. 4.15 pm B. 16.15 h
C. 4.15 am D. 5.15 am

26. A triangular right angled piece of land has an area of 150 m^2. Its base is 20 m long. What is the length of its longest side?
A. 15 m B. 30 m
C. 25 m D. 40 m

27. Mary bought a car for sh 198,000 after being offered a discount of $17^1/_2\%$. How much was the marked price of the car?
A. sh 240,000 B. sh 693,000
C. sh 42,000 D. sh 156,000

28. What is the sum of the next two numbers in the pattern? 48, 52, 61, 77, 102, _____, _____.
A. 49 B. 138
C. 187 D. 325

29. A salesman sold goods worth sh 500000 and was paid 5% of the sales as commission. How much did the owner of the goods remain with after paying the salesman?
A. sh 25,000 B. sh 475000
C. sh 425000 D. sh 75,000

30. A farmer had 150 heads of cattle. Out of these he gave is first child 0.14 of the cattle, 0.2 of them to his second child and he remained with $^2/_3$ of the remaining cattle. The rest of the cattle were sold. How many heads of cattle were sold?
A. 21 B. 30 C. 33 D. 66

31. What is the product of 9.438 and 0.23 to 2 decimal places?
A. 2.17 B. 2.18
C. 2.170 D. 21.71

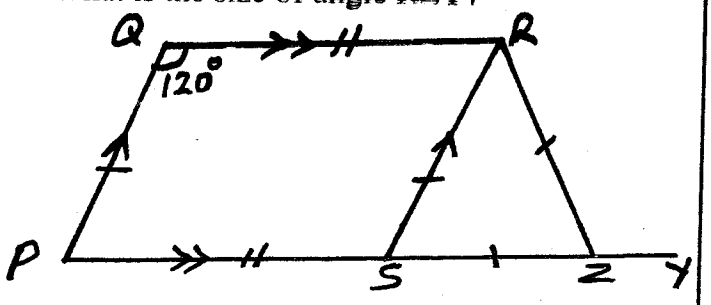
32. Simplify the following expression:
$2(3y + 4) + {}^2/_3 (18 + 15y)$
A. $21y + 20$ B. $16y + 44$
C. $20y + 16$ D. $16y + 20$

33. The cash price of an item was sh 3000. The hire purchase price was 25% more than the cash price. Kimani bought it on hire purchase by paying a deposit of sh 2000 as the rest in 10 equal monthly installments. How much was each instalment?
A. sh 375 B. sh 175
C. sh 100 D. sh 750

34. Tito borrowed sh 20,000 from a group that charges simple interest at the rate of 5% per annum. If he was to pay back the money after 9 months, how much money in total did he pay back?
A. sh 29000 B. sh 9000
C. sh 20,750 D. sh 750

35. The mean mass of 7 girls is 42 kg, six of the girls weigh 38 kg, 40 kg, 41 kg, 42 kg, 43 kg and 45 kg. What is the sum of the mean and the mode of the masses of the seven girls?
A. 294 B. 45 C. 249 D. 87

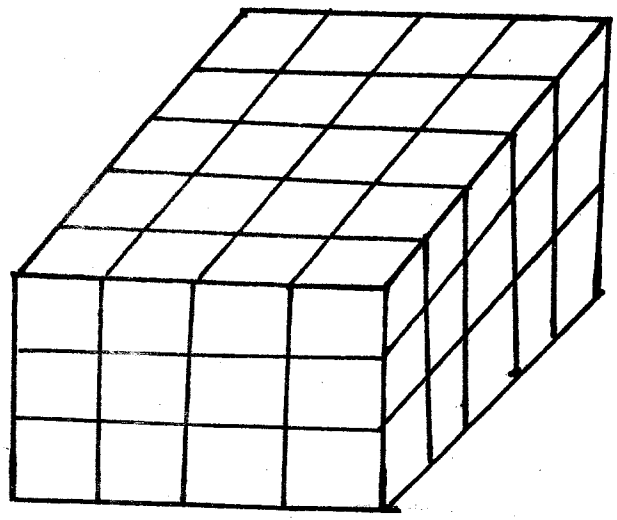
36. In the figure below P Q R S is a parallelogram. Line RS = SZ = RZ. Angle P, Q, R = 120^0. What is the size of angle RZY?



A. 60^0 B. 180^0
C. 120^0 D. 140^0

37. What is the place value of digit 4 in the value of 10.27 x 0.15?
A. Hundredths B. Hundreds
C. Tenths D. Thousandths

38. The stack below was dipped in a pool of red ink. How many cubes got ink on three faces only?



A. 24 B. 8
C. 16 D. 22

39. A rectangular container has a square base of side 70 cm and its height is 80 cm. How many litres of water does it hold when half full?
A. 196 L B. 392 L
C. 5.6 L D. 560 L

40. In a farm the ratio of cows to goats is 5:7. If there are 20 cows, how many more goats are there than the cows?
A. 28 B. 68
C. 8 D. 48

41. Njeri is X years old now. Her brothers is 7 years younger than her. What was their total ages 4 years ago?
A. 2y - 10
B. 2y + 15
C. 2y - 15
D. 2y - 11

42. Using a ruler, a protractor and a pair of compass construct triangle XYZ such that XY = 5 cm, XZ = 7 cm and angle ZXY = 60^0. Measure line ZY.
A. 6 cm B. 8 cm
C. 9 cm D. 4.5 cm

43. A father shared his money to his three sons as follows: Kilo received $^1/_3$ while Tito received $^1/_5$ of the money. Jola received $^1/_2$ of the remainder. What fraction of the money was shared out?

A. $^7/_{15}$ B. $^7/_{30}$

C. $^8/_{15}$ D. $^{23}/_{30}$

44. Kamau bought 6 crates of soda at sh 300 each. He also paid sh 200 for transport. During transportation, 44 bottles broke. He sold the rest at sh 15 per bottle. If a crate holds 24 bottles, what was his percentage loss?

A. $16^2/_3$ % B. $33^1/_3$%

C. 25% D. 50%

45. A farmer harvested 1200 bags of maize in the year 2011. This was a 20% decrease from year 2010. How many bags had he harvested in 2010?

A. 1500 B. 1440

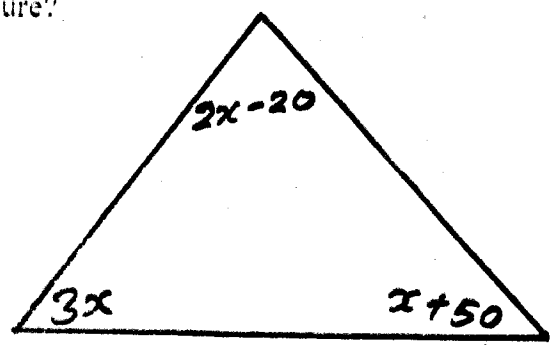
C. 960 D. 240

46. A motorist travelled at a speed of 80 km/hr, for 2 hours. Then he rested for 1 hour. He continued the journey at a speed of 45 km/hr for 2 hours. What was his average speed for the whole journey?

A. $31^1/_4$ km/hr B. 50 km/hr

C. 125 km/hr D. $62^1/_2$ km/hr

47. What is the size of the smallest angle in the figure?



A. 25 B. 75

C. 55 D. 30

48. The table below shows the number of pupils absent in a class of 42 pupils in a week?

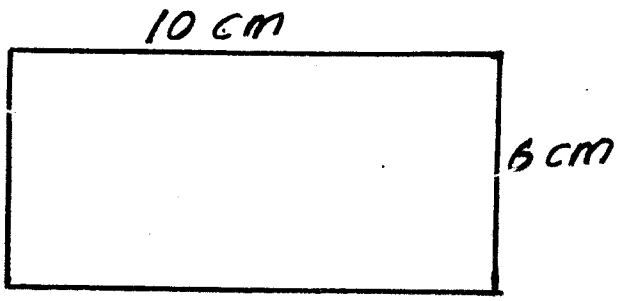
	Mon	Tue	Wed	Thur	Fri
Girls	4	3	3	2	3
Boys	2	3	2	3	5

What was the total class attendance for that week?

A. 180 B. 210

C. 30 D. 150

49. ***The figure below represents a piece of land drawn using the scale of 1:10000.***

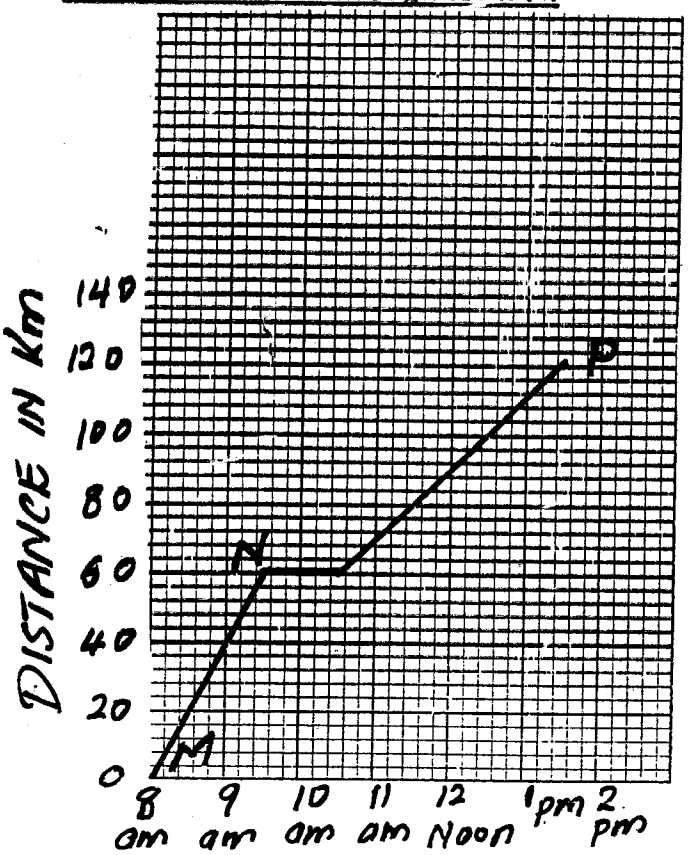


Calculate the area of the piece of land in hectares.

A. 6 B. 60

C. 600 D. 600000

The graph below shows a cyclist's journey from town M to P through town N.



50. What was the cyclist's average speed from town N to P?

A. 40 km/h B. 30 km/h

C. 20 km/h D. 15 km/h