

SCHOOL BASED EVALUATION TEST

D003

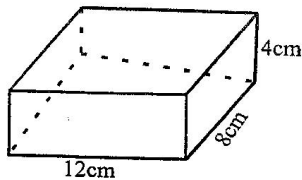
STD. 7 YEAR 2022

[7]

MATHEMATICS

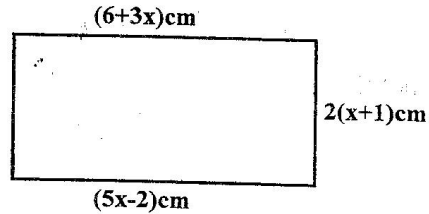
Time: 2Hrs.

1. Which one of the following is 5007004 in words?
 - A. Five million seventy thousand and four
 - B. Fifty million seven thousand and four
 - C. Five million seven thousand and four
 - D. Five million seventy thousand and four
2. What is the total value of digit 2 in the number 54630.821?
 - A. Hundredths
 - B. Tenths
 - C. Two thousandths
 - D. Two hundredths
3. Find the difference between the largest and the smallest number that can be formed by the digits 53074?
 - A. 44973
 - B. 30457
 - C. 75430
 - D. 105887
4. Round off 602.998 to the nearest hundredths.
 - A. 602.00
 - B. 603.00
 - C. 602.100
 - D. 603.0
5. In a school, clubs meet after three different durations. Mathematics club meet after 9 days, English club meet after 12 days and Kiswahili club meet after 5 days respectively. After how many days will the three clubs meet together?
 - A. 120 days
 - B. 180 days
 - C. 150 days
 - D. 90 days
6. Find the sum of the square of 6^2 and the square root of $\sqrt{16}$
 - A. 1296
 - B. 4
 - C. 40
 - D. 1298
7. Which of the following is the smallest number that can be added to 85495 to make it divisible by 11?
 - A. 8
 - B. 3
 - C. 5
 - D. 2
8. Jetee made a toy car for his son in the shape below using a wire. What was the total length of the wire used?

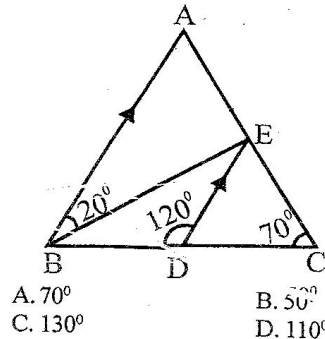


- A. 24cm
- B. 96cm
- C. 74cm
- D. 48cm

9. Find the area of the figure below.

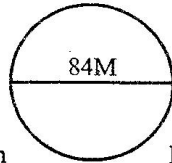


- A. 56cm^2
 - B. 45cm^2
 - C. 90cm^2
 - D. 180cm^2
10. Arrange the following fractions in a descending order; $\frac{11}{13}, \frac{8}{9}, \frac{2}{3}, \frac{4}{7}$
 - A. $\frac{8}{9}, \frac{11}{13}, \frac{2}{3}, \frac{4}{7}$
 - B. $\frac{4}{7}, \frac{2}{3}, \frac{11}{13}, \frac{8}{9}$
 - C. $\frac{11}{13}, \frac{8}{9}, \frac{4}{7}, \frac{2}{3}$
 - D. $\frac{2}{3}, \frac{4}{7}, \frac{8}{9}, \frac{11}{13}$
 11. In the figure below, line AB is parallel to ED. Angle $\text{ABE} = 20^\circ$, angle $\text{EDB} = 120^\circ$ and angle $\text{ECD} = 70^\circ$. What is the size of angle AEB?

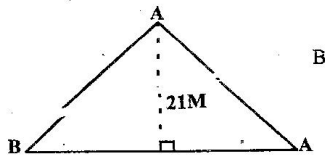


- A. 70°
 - B. 50°
 - C. 130°
 - D. 110°
12. Muyaka had money as follows;
 - 4 notes of sh 1000
 - 3 notes of sh 500
 - 16 notes of sh 200
 - 11 notes of sh 100
 - 9 notes of sh 50
 She changed all the money to five-shilling coins. How many five-shilling coins did she get?
 - A. 51250
 - B. 10250
 - C. 2050
 - D. 370

13. The circular plot of land below was fenced using four strands of wire leaving a gate of 3m. What was the total length of the wire used?

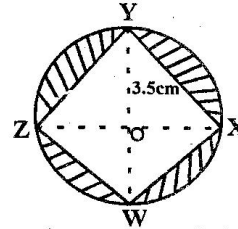


- A. 264m B. 1044m
C. 1056m D. 1068m
14. Kenda paid sh 1080 for an item after getting a 10% discount. How much less could he have paid if he was given a $12\frac{1}{2}\%$ discount?
A. Sh 1200 B. Sh 30
C. Sh 1050 D. Sh 150
15. What is the sum of the next two numbers in the sequence?
 $\frac{1}{10}, \frac{1}{2}, 2\frac{1}{2}, 12\frac{1}{2}, \dots, \dots$
A. $62\frac{1}{2}$ B. 94 C. $312\frac{1}{2}$ D. 375
16. What is the value of $\frac{a^2(b-c)}{b-c}$ If $a = 5, b = 9$ and $c = 4$?
A. 1 B. 5 C. 25 D. 125
17. A certain quadrilateral has the following properties
(i) Diagonals are not equal but bisect each other
(ii) Has two sets of parallel lines
(iii) Diagonals meet at a right angle
(iv) All sides are equal
Which quadrilateral is described above?
A. Rhombus B. Square
C. Rectangle D. Parallelogram
18. The figure below represents a triangular piece of land whose area is 7.56 ares.

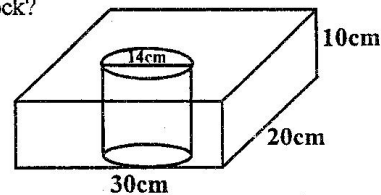


- If the perpendicular height is 21m, what is the length of the base BC?
A. 756m B. 36m C. 72m D. 42m
19. A company prepares 6400 litres of juice in a day, which is packed into 200ml and 1000ml packets. Three fifths of the juice is packed into 1000ml packets and the rest in 200ml packets. What is the total number of packets used in two days?
A. 3840 B. 25600
C. 33280 D. 16640
20. The figure below shows a square WXYZ drawn inside a circle with centre O. The radius of the

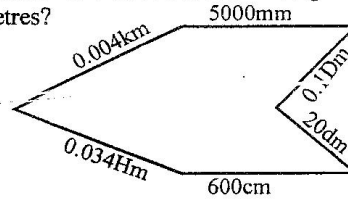
circle is 3.5cm. What is the area of the shaded part?



- A. 38.5cm^2 B. 24.5cm^2
C. 26.25cm^2 D. 14.0cm^2
21. Neera made a hollow block as shown in the figure below. The measurements of the block are 30cm by 20cm by 10cm. The diameter of the hollow cylindrical space is 14cm. What is the volume of the block?

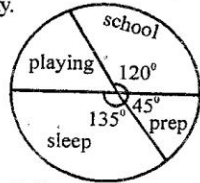


- A. 7540cm^3 B. 6000cm^3
C. 4460cm^3 D. 1540cm^3
22. Draw triangle PQR in which line $PQ = 5\text{cm}$, line $QR = 7\text{cm}$ and angle $PQR = 100^\circ$. Drop a perpendicular line from R to meet PQ at X. What is the measure of line RX?
A. 8.5cm B. 9.3cm
C. 7.5cm D. 7cm
23. What is the distance around the figure below in metres?



- A. 21.4 B. 17.8
C. 54 D. 33.4
24. A section of a road measuring 2km is represented on a map by 10cm. Which one of the following is the scale used on the map?
A. 1 : 200 B. 1 : 2000
C. 1 : 20000 D. 1 : 200000
25. The mean weight of 6 girls is 30kg. The total weight of 4 of the girls is 128kg. If the remaining 2 girls have the same weight, what is the weight of each of the two girls?
A. 26kg B. 30kg
C. 52kg D. 32kg

26. A room 10m long, 8m wide and 4m high was to be painted on the walls both inside and outside. If the door and the windows occupied an area of 24m^2 was not painted, what was the total area painted?
 A. 320m^2 B. 296m^2 C. 144m^2 D. 288m^2
27. The pie chart below shows how Kendra spent a 24 hour day. Which one correctly shows how she spent the day.



Which of the following correctly shows how she spent the hours?

- | Sleep | Prep | School | Playing |
|----------|------|--------|---------|
| A. 8 hrs | 4hrs | 9hrs | 3hrs |
| B. 9hrs | 4hrs | 8hrs | 3hrs |
| C. 8hrs | 3hrs | 9hrs | 4hrs |
| D. 9hrs | 3hrs | 8hrs | 4hrs |

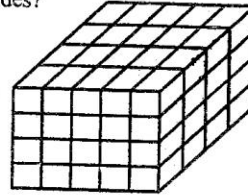
28. The table below shows the number of sodas sold by a trader in 5 days.

Drinks	Mon	Tue	Wed	Thur	Fri	Total
Coke	___	120	205	200	___	780
Fanta	75	100	___	135	350	___
Sprite	30	95	102	___	114	540
Total	215	___	390	___	518	___

How many more bottles of Sprite were sold on Thursday than the Coke bottles sold on Monday?
 A. 110 B. 325 C. 89 D. 16

29. Mulwa travelled by bus from 11.00am to 3.00pm, a distance of 360km. He then used a matatu whose average speed was 10km/h less than the bus. What was his average speed for the whole journey if the matatu took 6hrs?
 A. 80km/h B. 42km/h
 C. 85km/h D. 84km/h
30. At a meeting, $\frac{2}{5}$ of attendants were women, $\frac{1}{3}$ of the remainder were men and the rest were children. If there were 160 children, how many people attended the meeting altogether?
 A. 640 B. 260 C. 400 D. 820
31. A carpenter used a 15m long ladder. One end of the ladder was placed 9m away from the wall on a level ground while the other end touched the top of the wall. What is the height of the wall?
 A. 4m B. 6m C. 24m D. 12m

32. The cuboid below was dipped inside a bucket of liquid paint. How many cubes were painted on three sides?



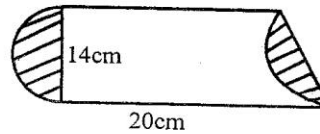
- A. 80 B. 32 C. 76 D. 8

33. The table below shows the distances in kilometres between K, L, M and N. What is the distance from N to K via M?

K	L	M	N
90	___	___	___
123	147	___	___
113	1450	82	___

- A. 123km B. 205km
 C. 113km D. 319km

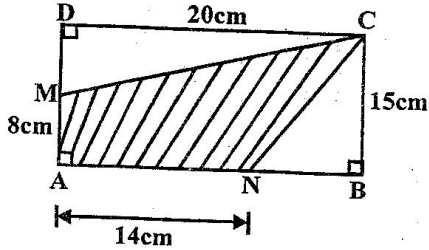
34. Five men can dig a shamba in 8 days. How many more days will it take four men working at the same rate to complete digging the same shamba?
 A. 10 B. 6 C. 2 D. 9
35. The marked price of a watch was sh 800. During a sale, the price was reduced to sh 640. What was the percentage decrease?
 A. 25% B. 20% C. 40% D. 80%
36. Find the difference between the product of the number of faces, edges and vertices of a closed and an open cuboid?
 A. 480 B. 576 C. 25 D. 96
37. The diagram below is a block of wood. Find its volume.



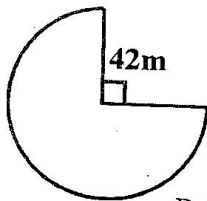
- A. 1540cm^3 B. 3080cm^3
 C. 594cm^3 D. 880cm^3

38. Kelly has two apples more than Joy, and three apples less than Njogu. They have a total of 64 bananas. If Kelly has r apples, which of the equations below can be used to find the value of r ?
 A. $3r - 1 = 64$ B. $3r + 1 = 64$
 C. $3r - 5 = 64$ D. $3r + 5 = 64$

39. In the figure below, ABCD is a rectangle in which BC=15cm and CD=20cm. BCN and CDM are right angled triangles. M and N are points on line AD and AB, such that AM=8cm and AN=14cm. Find the area of the shaded part.



- A. 185cm^2 B. 115cm^2
 C. 70cm^2 D. 45cm^2
40. A business woman bought two 90kg bags of maize in 2kg tins at sh 45 per tin. How much profit did she make?
 A. Sh 675 B. Sh 1800
 C. Sh 1350 D. Sh 900
41. Kamata deposited sh. 30,000 in a bank which paid simple interest at the rate of 12 percent per annum. After 15 months, he withdrew all his money. How much did he withdraw?
 A. Sh 4500 B. Sh 3600
 C. Sh 33600 D. Sh 34500
42. A bicycle wheel has a radius of 35cm. What distance in kilometres does the wheel cover after making 100 revolutions? (take $\pi = \frac{22}{7}$)
 A. 0.22 B. 2.2 C. 22 D. 220
43. In a certain school, maize and beans are mixed so that their masses are in the ratio 2:3. The total mass of the mixture was 20kg. What was the mass in kilograms of the beans in the mixture?
 A. 12kg B. 8kg
 C. 4kg D. 16kg
44. Kipkemboi ran round the figure below three times. What distance did he cover in metres?



- A. 264 B. 792
 C. 297 D. 594

45. Sh 24000 was shared among three IDP camps A, B and C in the ratio 2:3:7 respectively. How much money did camp B receive?

- A. Sh 40000 B. Sh 140000
 C. Sh 100'000 D. Sh 60000

46. What is the sum of the supplement of 87° and the complement of 48° ?

- A. 93° B. 132°
 C. 225° D. 135°

47. Faustin bought a TV set on hire purchase terms. He paid a deposit of sh 4000. The remaining amount was paid in 10 equal monthly instalments. She paid a total of sh 18400. How much was each monthly instalment?

- A. Sh 1840 B. Sh 400
 C. Sh 2240 D. Sh 1440

48. The charges for sending a telegram are sh 25 for the first ten words or less. Any additional word is charged at sh 1.50. A tax of 15% is also charged on the total amount. What was the cost of sending the telegram below?

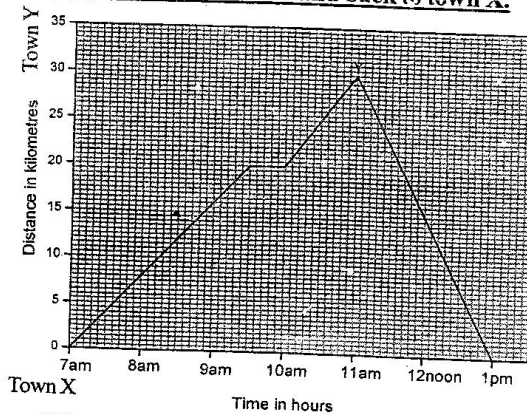
NIKKI WANJIRU BOX 200 NYERI COME TO KISUMU URGENTLY MOTHER IN HOSPITAL ATIENO.

- A. Sh 35.65 B. Sh 33.95
 C. Sh 28.75 D. Sh 31.00

49. Which of the following is the correct prime factorization of 96?

- A. $2 \times 2 \times 2 \times 2 \times 3$
 B. $2 \times 7 \times 3 \times 3 \times 3$
 C. $2 \times 2 \times 2 \times 2 \times 2 \times 3$
 D. $2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3$

50. The line graph below shows Jean's journey from town X to town Y and back to town X.



- What was her average speed in metres per second?
 A. $3\frac{1}{3}$ B. $2\frac{7}{9}$ C. 36 D. 10