

BRIGHT VISION SERIES

STD. 8 - YEAR - 2023

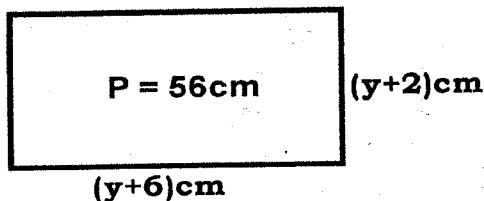
MATHEMATICS

Time: 2 Hrs

- What is **440444.04** written in words.
A. Forty four thousand four hundred and forty four and four tenths.
B. Four hundred and forty four thousand four hundred and forty four and four hundredths.
C. Four hundred and forty thousand four hundred and forty four and four hundredths.
D. Four hundred and forty thousand four hundred and forty four and four tenths.
- What is the difference between the total value of digits in thousands and hundreds position in the number **789240**?
A. 8800
B. 200
C. 900
D. 9200

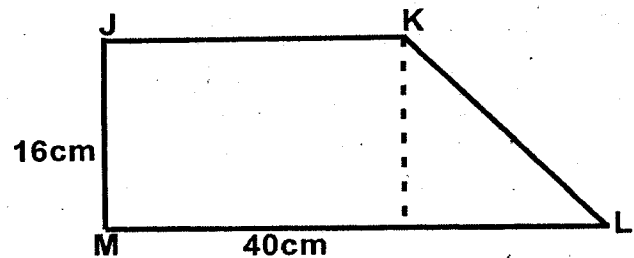
3. Work out: $\frac{4.8 \times 18.3}{6 \times 0.6}$

- A. 0.244
B. 24.4
C. 244
D. 2.44
4. What is the value of y in the figure below. Perimeter is 56cm.



- A. 12cm
B. 16cm
C. 10cm
D. 8cm
5. What is **19.347** to the nearest hundredths?
A. 19.30
B. 19.34
C. 19.350
D. 19.35
6. What is the product of LCM and HCF of numbers **10, 20** and **40**.
A. 10
B. 50
C. 40
D. 400
7. What is the value: $7\frac{1}{2} + 1\frac{1}{4}$ of $3\frac{1}{6} \div 2\frac{1}{2}$
A. $9\frac{1}{12}$
B. $7\frac{25}{38}$
C. $11\frac{1}{12}$
D. $17\frac{19}{48}$
8. What is the next number in the pattern?
45, 51, 57, 59, 65, 71
A. 77
B. 75
C. 73
D. 79

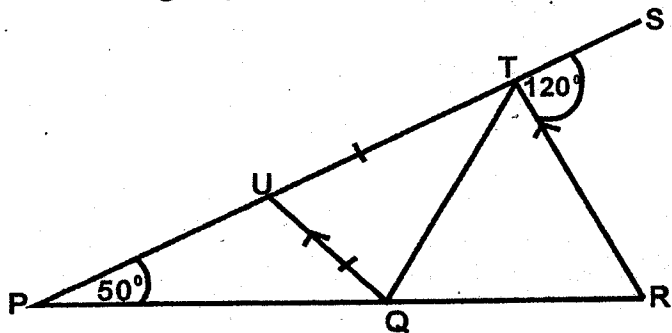
9. The area of trapezium **JKLM** drawn below is **544cm²**. Line **JK** is parallel to line **LM** and line **JM** is the perpendicular distance.



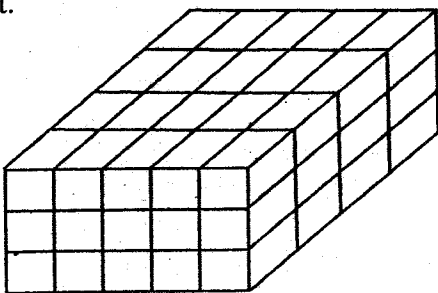
What is the length of line **KL**?

- A. 12cm
B. 16cm
C. 28cm
D. 20cm
10. Five men can dig a piece of land in **12** days. How many more men working at the same rate will be needed to dig the same in **3** days?
A. 8
B. 20
C. 15
D. $1\frac{1}{4}$
11. The number of pairs of shoes sold at a shoe shop was as shown below.
9, 10, 11, 14, 12, 17, 11, 15, 10, 13 and **10**. What was the mode of the shoes sold?
A. 12
B. 11
C. 17
D. 10
12. A business lady borrowed **sh.40 000** from a lending institution at a simple interest rate of **2.5%** per month. How much did she pay at the end of the year (one year)?
A. Sh. 1000
B. Sh. 52 000
C. Sh. 12 000
D. Sh. 41 000
13. What is the value of: $\frac{m+n^2}{2t-1}$
when $m=3, t=m-1$ and $n=t+5$
A. $3\frac{1}{3}$
B. $5\frac{2}{3}$
C. $17\frac{1}{3}$
D. $33\frac{1}{3}$
14. Wale spends $\frac{1}{2}$ of his free time in the morning to run and $\frac{1}{8}$ washing his clothes. He spends $\frac{2}{3}$ of the remainder reading novels. He visits his friend Mwamboza for the rest of the time. What fraction of his time does he spend with Mwamboza?
A. $\frac{1}{8}$
B. $\frac{1}{4}$
C. $\frac{5}{8}$
D. $\frac{3}{8}$

15. On a map a road of **12km** is represented by **6cm**. What is the scale used?
 A. 1:20000 B. 1:200000
 C. 1:2000 D. 1:2000000
16. When I sell an item for **Sh. 4500**, I make a loss of **25%**. At what price should I sell it to make a profit of **5%**?
 A. Sh. 5906 B. Sh. 6000
 C. Sh. 6300 D. Sh. 4725
17. In the year 2008, February 20th was on Wednesday. What day was 10th March the same year?
 A. Wednesday B. Tuesday
 C. Sunday D. Monday
18. Construct triangle **PQR** where **QR = 7cm**, **PR = 9cm** angle **PQR = 43°**. Measure line **PQ**.
 A. 9cm B. 12.8cm
 C. 10cm D. 7cm
19. In the figure below, lines **QU** and **RT** are parallel. Lines **QU** and **TU** are equal. Line **PS** is a straight line. Angle **QPU = 50°**. and angle **STR = 120°**.



- What is the size of angle **RQU**?
 A. 60° B. 100°
 C. 110° D. 80°
20. A family uses 2 - 500ml packets of milk daily. How many litres of milk does the family consume in the month of January, February and March of a leap year?
 A. 92 litres B. 90 litres
 C. 89 litres D. 91 litres
21. The following stack of cubes was dipped in a paint.



- How many cubes had paint on two faces only?
 A. 9 B. 22
 C. 24 D. 60

22. A 26 seater bus and 14 seater matatu were to transport 494 pupils to a sports meeting. If a matatu made an extra trip than the bus, how many pupils did the matatu transport?
 A. 182 B. 312
 C. 168 D. 13
23. Ann and John shared some money in the ratio **3:5**. If John got **sh. 1200** more than Ann, how much money did Ann get?
 A. Sh. 3000 B. Sh. 1800
 C. Sh. 4800 D. Sh. 720
24. The table below shows the number of vehicles that passed near Ruaraka Academy during one week.

| Weekday | Mon | Tue | Wed | Thur | Fri | Sat |
|-----------------|-----|-----|-----|------|-----|-----|
| No. of vehicles | 49 | 50 | 47 | 53 | 51 | 46 |

On which consecutive days was the total number of vehicles that passed near the school greatest?

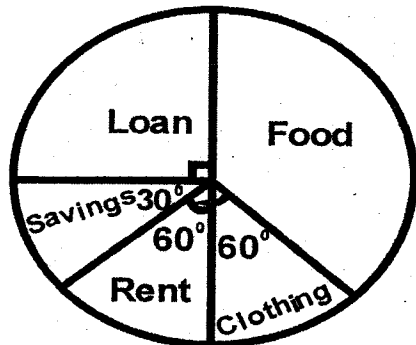
- A. Tuesday, Wednesday, Thursday
 B. Monday, Tuesday, Wednesday
 C. Wednesday, Thursday, Friday
 D. Thursday, Friday, Saturday
25. Construct a parallellgram **WXYZ** such that line **WX = 5cm** and **XY = 7.5 cm** angle **WZY = 135°**. Join **W** to **Y** and **Z** to **X** and let the point of intersection be **O**. What is the length of the line **WO**?
 A. 5.8cm B. 2.6cm
 C. 5.2cm D. 11.6cm
26. What is the simplest form of:

$$\frac{2(3x+y) + 3x-2y}{3(3x-3y) + 6x + 9y}$$

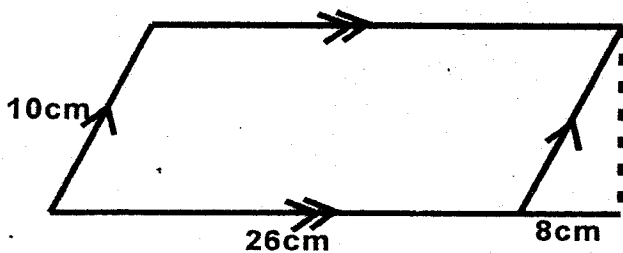
 A. $\frac{3x}{3y}$ B. $\frac{9x}{15x}$
 C. $\frac{9x + 4y}{15x+18y}$ D. $\frac{3}{5}$

27. Wang'oa is paid a salary of **sh. 3800** plus **5%** commission of the total sales. In one month, he sold goods worth **sh.32000**. How much did he earn that month?
 A. Sh. 35800 B. Sh. 1600
 C. Sh. 5400 D. Sh. 5590

28. The following pie chart shows how Ann spent her salary. If she spent sh. 3600 on food, how much more did she spend on loan than on rent?



- A. Sh. 900
B. Sh. 2700
C. Sh. 4500
D. Sh. 1800
29. A bus left Nairobi at 0915hrs. It took 4hrs and 40mins to reach Nakuru. At what time did it reach Nakuru in am/pm?
- A. 1.55am
B. 1.55pm
C. 2.55pm
D. 2.55am
30. A cylindrical tank has an internal diameter of 2.8m and a height of 6m. What is the capacity of the tank in litres: $\pi = \frac{22}{7}$
- A. 3696
B. 36.96
C. 36960
D. 369.6
31. What is the area of the figure below?

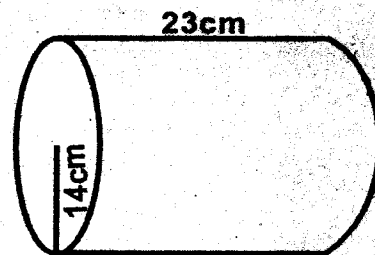


- A. 156cm²
B. 80cm²
C. 340cm²
D. 260cm²
32. Monica bought the following items from a supermarket.
- 2kg of rice @ sh. 175 per kg
2 - 2kg packets of maize flour @ sh. 120
1kg sugar @ sh. 120 per kg
3 packets of salt for sh. 60.
- She gave the shopkeeper a sh. 1000 note. How much did she add to the shopkeeper in order to get a balance of two hundred and fifty shillings?
- A. Sh. 830
B. Sh. 170
C. Sh. 20
D. Sh. 70

33. Three bells ring at intervals of 30 minutes, 50 minutes and 15 minutes. If they ring together at 11:50am, when will they ring together again?
- A. 2.20pm
B. 1.50pm
C. 2.30pm
D. 1.00pm
34. Simon is 4 times older than his son Henry. His wife is 6 years younger than Simon. If their son is x years old, what is the sum of all their ages?
- A. 6x - 6 years
B. 6x + 12 years
C. 9x + 6 years
D. 9x - 6 years
35. The table below shows charges of sending money via money order.

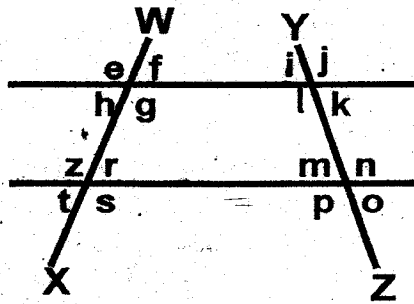
| Range | Charged |
|---------------|---------|
| Upto - 1000 | 110 |
| 1001 - 2500 | 165 |
| 2501 - 5000 | 225 |
| 5001 - 10000 | 285 |
| 10001 - 20000 | 355 |

- Njagi sent two money orders one of sh.12000 and another one sh.7500. How much money in total did he pay at the post office?
- A. Sh. 640
B. Sh. 20 140
C. Sh. 20 040
D. Sh. 19 500
36. $3p - 2(p + 1) = 4$
- A. 2
B. 3
C. 6
D. 5
37. The length of a rectangular garden is 48m and its width is 36m. How many trees, 2m apart can be planted around the figure?
- A. 84
B. 124
C. 168
D. 42
38. Find the volume of the cylinder drawn below.

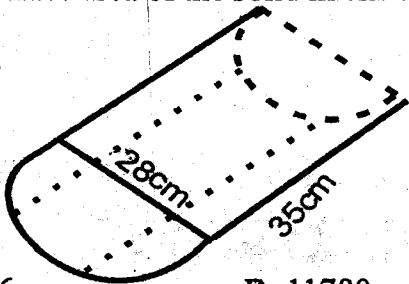


- A. 1012cm³
B. 2024cm³
C. 616cm³
D. 14168cm³
39. A meeting was attended by 600 people. Out of these 0.14 were men, 0.2 were women and the rest were youths. How many youths were there?
- A. 84
B. 396
C. 120
D. 204
40. A lorry weighs 3.6 tonnes when empty. It weighed 6.3 tonnes when loaded with 90kg bags of wheat. How many bags of wheat are loaded?
- A. 110
B. 70
C. 40
D. 30

41. Which statement is true about the figure below.



- A. Angle r corresponds to angle f
 B. Angle r and l are co-interior
 C. Angle e is alternate to angle t
 D. Angles j is vertically opposite to angle n
42. The marked price of a car is sh.600 000. Mr. Deche bought the car at a discount of 20% and later sold it to Mr. Mutegi at its marked price. What percentage profit did Mr. Deche make?
 A. 30% B. 25%
 C. 35% D. 20%
43. The figure below represents a half cylindrical solid whose dimensions are shown below. What is the surface area of the solid in cm^2 ?



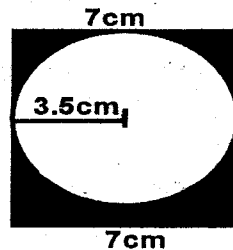
- A. 2156 B. 11780
 C. 3696 D. 3136
44. Naliaka has B books, Christine has 5 more books than Naliaka. Avisa has 3 books less than the total number Naliaka and Christine have. How many books do they have altogether?
 A. $4b + 7$ B. $4b - 3$
 C. $4b + 13$ D. $4b + 3$
45. Arrange the following in ascending order.
 $\frac{3}{4}, \frac{2}{3}, \frac{5}{6}, \frac{4}{9}$
 A. $\frac{5}{6}, \frac{3}{4}, \frac{2}{3}, \frac{4}{9}$
 B. $\frac{4}{9}, \frac{3}{4}, \frac{2}{3}, \frac{5}{6}$
 C. $\frac{2}{3}, \frac{3}{4}, \frac{4}{9}, \frac{5}{6}$
 D. $\frac{4}{9}, \frac{2}{3}, \frac{3}{4}, \frac{5}{6}$
46. Below are properties of quadrilateral
 i) Has two sets of parallel lines
 ii) Diagonals are equal
 iii) Diagonals intersect at right angle
 iv) Some angles are equal.
 Which one is not true about a rhombus?
 A. (ii) B. (iv)
 C. (iii) D. (i)

47. The table below shows the straight distances between six towns in kilometres.

| | | | | | |
|-----|----|----|----|---|---|
| J | | | | | |
| 18 | K | | | | |
| 42 | 21 | | | | |
| 59 | 47 | L | | | |
| 76 | 61 | 39 | M | | |
| 104 | 92 | 83 | 54 | N | |
| | | | | | P |

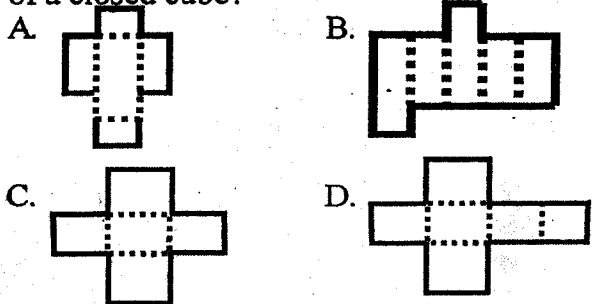
What is the distance in km from town P to town J through town K?

- A. 104 B. 92
 C. 110 D. 134
48. The figure KLMN drawn below is a square of sides 7cm.



What is the area of the shaded region?

- A. 10.5cm^2 B. 49cm^2
 C. 38.5cm^2 D. 28cm^2
49. Which one of the nets shown below is the net of a closed cube?



50. Complete the pattern below

