

NYANDARUA COUNTY

- ▶ **MATHEMATICS**
- ▶ **ENGLISH LANGUAGE**
- ▶ **ENGLISH COMPOSITION**
- ▶ **KISWAHILI LUGHA**
- ▶ **KISWAHILI INSHA**
- ▶ **SCIENCE**
- ▶ **SOCIAL STUDIES/C. R. E.**

MATHEMATICS

1. What is the total value of digit 8 in the number 57.3648?
 - A. 0.008
 - B. Ten thousandths
 - C. 0.0008
 - D. Thousandths
2. Find the sum of the square of 1.4 and the square root of 5.76
 - A. 43.6
 - B. 7.16
 - C. 7.72
 - D. 4.36
3. A farmer harvested 8925 bags of wheat, 3876 bags of maize and 4678 bags of beans. How many bags did she harvest altogether to the nearest thousands?
 - A. 17000
 - B. 17480
 - C. 18400
 - D. 17479
4. Find the missing digit to make the number given divisible by eleven 50 ____ 13
 - A. 3
 - B. 4
 - C. 5
 - D. 7
5. The area of a square plot is 961m^2 . It was fenced using 4 strands of wire. Calculate the total length of the wire used
 - A. 124m
 - B. 496m
 - C. 31m
 - D. 3844m
6. Simplify $2(3x + 4) - 3(x - 6)$
 - A. $3x + 26$
 - B. $3x + 10$
 - C. $3x - 10$
 - D. $3x + 14$
7. Kuria used $\frac{1}{3}$ of his shamba to plant beans, $\frac{1}{4}$ of the remainder on cabbages and the rest on tomatoes. What fraction of the shamba did he use on tomatoes?
 - A. $\frac{1}{3}$
 - B. $\frac{7}{12}$
 - C. $\frac{5}{12}$
 - D. $\frac{1}{2}$
8. Which set of measurements will not form a right angled triangle?
 - A. 9cm, 12cm, 15cm
 - B. 7cm, 24cm, 25cm
 - C. 5cm, 12cm, 13cm
 - D. 8cm, 13cm, 18cm
9. A bicycle wheel covers a distance of 440m after making 1000 revolutions. Calculate its diameter.
 - A. 14cm
 - B. 14m
 - C. 28m
 - D. 28cm
10. A self help group consisting of 120 members deposited sh 3000 for each member to a bank that paid them at annual compound interest rate of 6%. How much more was in their account after 2 years?
 - A. sh 404 496
 - B. sh 21600
 - C. sh 44496
 - D. sh 43200
11. Njoroge sold 480 oranges in piles of 6 at sh 8.50 per pile. If he had bought each orange at sh 1.20, how much profit did he get?
 - A. sh 680
 - B. sh 576
 - C. sh 96
 - D. sh 104
12. Construct a triangle XYZ in which line $XY = 8\text{cm}$, angle $XYZ = 70^\circ$ and line $YZ = 7\text{cm}$. Draw a circle touching points XYZ. Find the radius of the circle
 - A. 9.2cm
 - B. 2.3cm
 - C. 5.6cm
 - D. 4.6cm
13. Work out $48.432 - 50.78 + 6.45$
 - A. 8.798
 - B. 4.102
 - C. 4.10
 - D. 4.12
14. Njeri is ten years older than Wanja. If Wanja is W years old, what will be their total age in 5 years time?
 - A. $2w + 20$
 - B. $2w + 10$
 - C. $2w + 5$
 - D. $w + 20$
15. Which statement is not true about the angles shown below?

 - A. angle a is a corresponding angle to e
 - B. f and d are alternate angles
 - C. j and l are vertically opposite angles
 - D. $q + n = 1800$
16. Find the sum of the next two numbers in the pattern below
1, 4, 9, 16, 25 ____
 - A. 50
 - B. 36
 - C. 61
 - D. 85
17. Kimani paid sh 480 for a trouser after receiving a 20% discount. If he used the discount on buying a pair of socks, how much was the pair of socks?
 - A. sh120
 - B. sh 460
 - C. sh 96
 - D. sh 100

18. Wangari had the following money in her cash box

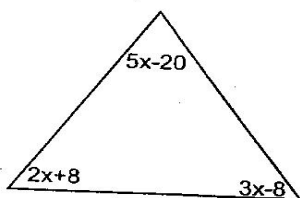
Denomination	50	100	200	1000
No of Notes	7	8	7	5

How much money did she have altogether?

- A. sh 8550
B. sh 6750
C. sh 7550
D. sh 9550
19. A river 8 km long is represented on a map by 5cm. Find the scale used
A. 1:1600
B. 1:16000
C. 1:160 000
D. 1:600 000
20. The charges for sending a telegram is sh12 for the first ten words or less and sh 2.50 for any extra word above 10 words. A commission of 5% is also charged on the total. How much did Njoroge pay for the telegram below?
**MAINA COME HOME QUICKLY MOTHER
SICK ADMITTED AGAKHAN HOSPITAL
WARD FIVE NJORGE**
- A. sh 17.00
B. sh 14.50
C. sh 24.85
D. sh 17.85
21. Work out

$$\frac{8.4 \times 0.063}{0.07 \times 0.09}$$

- A. 84
B. 0.84
C. 840
D. 8.4
22. The mass of an empty lorry is 3.2 tonnes. Its mass is 10.4 tonnes when packed with 90kg bags of maize. How many bags were packed?
A. 800
B. 8
C. 80
D. 150
23. The mean of eight numbers is 12.5. Seven of these numbers are 13, 14, 10, 9, 14, 15 and 12. What is the median of the eight numbers?
A. 14
B. 13
C. 9
D. 10
24. What is the difference between the largest and the smallest angle in the triangle below?

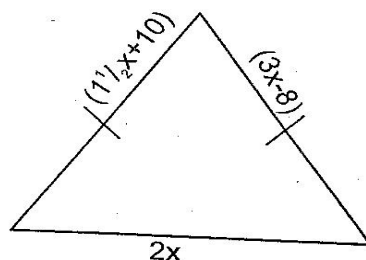


- A. 200
B. 320
C. 280
D. 260

25. Arrange the following fractions $\frac{5}{8}, \frac{2}{3}, \frac{7}{12}$ and $\frac{3}{5}$ in descending order

- A. $\frac{7}{12}, \frac{5}{8}, \frac{3}{5}, \frac{2}{3}$
B. $\frac{2}{3}, \frac{3}{5}, \frac{5}{8}, \frac{7}{12}$
C. $\frac{7}{12}, \frac{3}{5}, \frac{5}{8}, \frac{2}{3}$
D. $\frac{2}{3}, \frac{5}{8}, \frac{3}{5}, \frac{7}{12}$

26. The figure below represents an orchard. It was fenced using concrete posts which were put at a spacing of 5m. If each post cost sh 270, how much did it cost the owner to buy the posts?



- A. sh 4320
B. sh 4590
C. sh 5400
D. sh 5050
27. What is the value of $\frac{2m(t+3y)}{mty}$ given

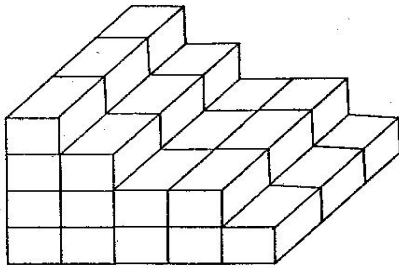
$$\text{that } m = 2t = 2my = m + t$$

- A. $2\frac{2}{9}$
B. $2\frac{4}{9}$
C. $2\frac{2}{3}$
D. $1\frac{5}{6}$
28. An open cylinder has a diameter of 14cm and height of 20cm. Calculate the area of its curved surface

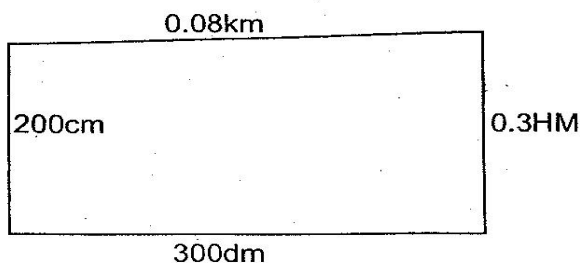
$$\left(\pi = \frac{22}{7}\right)$$

- A. 12320cm²
B. 1034cm²
C. 1188cm²
D. 880cm²
29. Work out $\frac{2}{3}$ of $(\frac{1}{3} - \frac{1}{5}) + \frac{2}{5}$
- A. $\frac{2}{5}$
B. $\frac{4}{45}$
C. $\frac{14}{45}$
D. $\frac{7}{22}$
30. A film show took 2 hours 15 minutes and ended at twenty five minutes past midnight. What time had it started?
A. 10.10am
B. 10.10pm
C. 2145h
D. 0240h
31. A rectangular tank has a capacity of 34.2 litres. If the base area is 1824cm², find the height in metres
A. 18.75m
B. 0.1875m
C. 1875m
D. 187.5m
32. Mucheru has enough feed for 60 cows for 40 days. For how many more days will it last if he sold 10 of the cows?
A. 48 days
B. 12 days
C. 8 days
D. 6 days

33. How many more cubes are needed to complete the stack below?



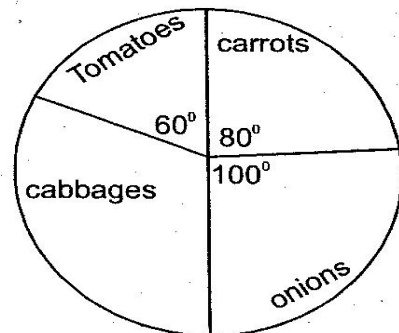
- A. 36
B. 30
C. 24
D. 48
34. Ndegwa sold a plot for sh 250 000. He was paid a commission of 25% as agency fee by the owner. How much did the owner get?
A. sh 62500
B. sh 300000
C. sh 15000
D. sh 187500
35. Kariuki deposited sh 240000 in a bank which paid simple interest at the rate of 12% p.a for $1\frac{1}{2}$ years. How much did he withdraw altogether at the end of that period?
A. sh 43200
B. sh 283200
C. sh 260000
D. sh 292000
36. Work out $\frac{4}{45}$
 $\frac{5}{8} \div 6\frac{1}{4} \times \frac{1}{5} + \frac{1}{4}$
A. $\frac{1}{50}$
B. $\frac{27}{100}$
C. $\frac{29}{100}$
D. $\frac{14}{50}$
37. Waithaka went round the figure drawn below twice. What distance did he cover in metres?



- A. 142m
B. 160m
C. 284m
D. 340m
38. Maathai bought the following items from a shop
2kg of sugar @ sh 96
 $\frac{1}{2}$ kg salt @ sh 24 per kg
2 kg tins of cooking fat @ sh 215 per tin

She paid for the items with a sh 1000 note, how much balance did he get?

- A. sh 419
B. sh 634
C. sh 335
D. sh 366
39. The ratio of boys to girls in a school is 4:5. If there are 54 more girls than boys, how many girls are in the school?
A. 220
B. 216
C. 270
D. 486
40. After an increase in demand for eggs, a farmer increased the number of layers by 50%. If she now has 450 layers, how many layers had she before?
A. 400
B. 150
C. 300
D. 250
41. A farmer had farm produce to be sold in the market. The given pie chart represents the quantity of each item. If he sold 36 kg of cabbages which of the following is correct on the mass of other items



	A	B	C	D
Tomatoes	36	30	18	18
Carrots	18	18	24	30
Cabbages	24	24	36	36
Onions	30	36	30	30

42. The cash price of a motorbike is sh 80000. Kamau bought it on hire purchase paying a deposit of sh 15000 and the rest in equal monthly instalments of sh 6000 per month for one year. How much more than marked price did he pay?
A. sh 6000
B. sh 4500
C. sh 7000
D. sh 2000
43. The temperature of hot iron was 96°C . It was cooled at the rate of 40°C per minute. What was the temperature after 17 minutes?
A. 68°C
B. 92°C
C. 28°C
D. 24°C

44. Simplify the inequality $12k + 12 > 18k + 6$
 A. $K > 1$ B. $K < 1$
 C. $K < 5$ D. $K > 5$

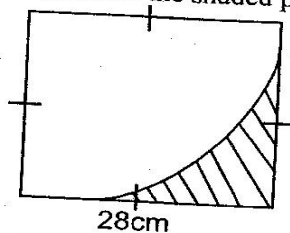
45. The table below shows matatus fares to different towns in shillings

T	U	V	W	X	Y
50					
100	60				
150	100	50			
225	200	135	100		
275	225	200	150	75	

A man and his wife with three children aged 15 years, 12 years and 8 years travelled from town T to Y via W. If children paid half fare, how much did they pay altogether?

- A. sh 750 B. sh 900
 C. sh 1000 D. sh 1050

46. Calculate the area of the shaded part

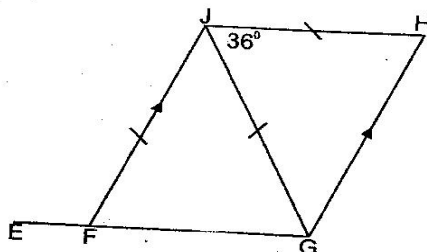


- A. 784cm^2 B. 196cm^2
 C. 112cm^2 D. 168cm^2

47. Ngina's wrist watch loses 1 second every two hours. If it is set right on Friday at 4pm, what time will it show on the following Wednesday at 4pm?

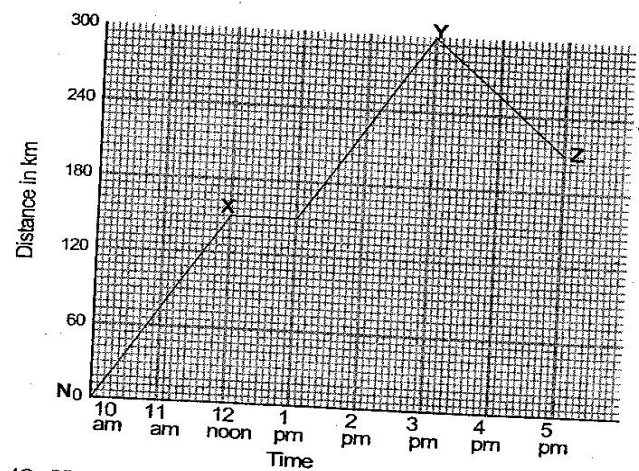
- A. 4.01pm B. 3.59pm
 C. 4.02pm D. 3.58pm

48. In the figure below JF is parallel to GH. Line $JH = JG = JF$. Angle $GJH = 36^\circ$. Find the size of angle JFE.



- A. 1440 B. 540
 C. 720 D. 1080

The graph below shows Wanja's journey. Use it to answer questions 49-50



49. How far from town Y was she at 1 pm?
 A. 225 B. 150km
 C. 180km D. 120km

50. What was her average speed for the whole journey
 A. 60km/h B. $72\frac{6}{7}\text{km/h}$
 C. $55\frac{5}{7}\text{km/h}$ D. 65km/h