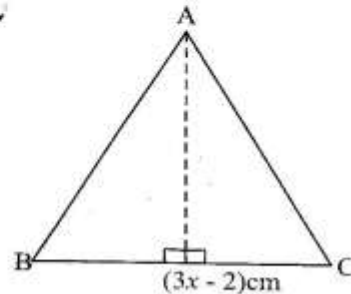


- Write ninety million nine hundred and nine thousand nine hundred and ninety in symbols.  
 A. 90909909  
 B. 9909990  
 C. 90909990  
 D. 9909909
- Which one of these numbers is divisible by 11?  
 A. 924539  
 B. 638411  
 C. 322477  
 D. 576320
- By how many times is the total value of digit 4 greater than the total value of digit 5 in the number 6425389?  
 A. 8  
 B. 80  
 C. 800  
 D. 8000
- What is 687.9563 rounded off to the nearest hundredths?  
 A. 687.90  
 B. 687.95  
 C. 687.9600  
 D. 687.96
- The area of a square farm is 0.1225 ha. It was to be fenced using 5 strands of barbed wire. How many metres of wire were required?  
 A. 140m  
 B. 28m  
 C. 700m  
 D. 4900m

- What is the place value of 7 in 3.2674?  
 A. Hundredths  
 B. Tenths  
 C. Tens  
 D. Thousandths
- The area of the triangle below is  $224\text{cm}^2$ . Its perpendicular height is 16cm.



What is the value of  $x$ ?

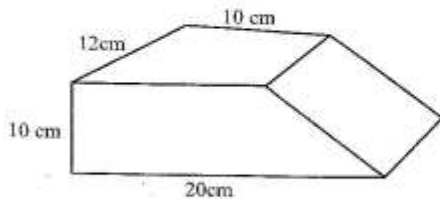
- 3cm  
 B. 12cm  
 C. 4cm  
 D. 10cm
- The mean of 10 numbers is 28. Nine of them are 28, 27, 29, 27, 25, 37, 29, 25, 27 and 26. What is the median of the ten numbers?  
 A. 26  
 B. 27  
 C. 28  
 D. 30
- Work out:  
 $1008 \div 8 - 13 \times 24 + (257 + 125)$   
 A. 508  
 B. 196  
 C. 820  
 D. 498

10. A poultry farmer collected 1312 eggs from his chicken in one week. He packed the eggs into trays. If each tray contained 30 eggs, how many trays did he require to pack them?
- A. 42  
B. 42.7  
C. 43  
D. 44

11. What is the next fraction in the vsequence  $\frac{1}{4}, \frac{1}{9}, \frac{1}{25}, \frac{1}{36}$  \_\_\_\_\_?
- A.  $\frac{1}{72}$                       B.  $\frac{1}{48}$   
C.  $\frac{1}{108}$                      D.  $\frac{1}{49}$

12. What is the value of  $\frac{3.6 \times 37.5 \times 9.6}{4.8 \times 7.5 \times 1.44}$ ?
- A. 25  
B. 2.5  
C. 0.25  
D. 250

13. Calculate the volume of the figure drawn below



- A.  $168\text{cm}^3$   
B.  $1680\text{cm}^3$   
C.  $2880\text{cm}^3$   
D.  $1280\text{cm}^3$

14. Simplify ;  $\frac{24p+5+10}{4p+5p+12}$

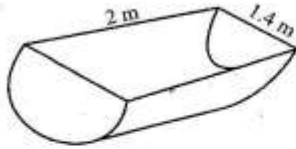
- A.  $\frac{24p+15}{9p+12}$                       B.  $\frac{2p+5}{3p}$   
C.  $\frac{8p+5}{3p+4}$                         D.  $\frac{2p+5}{3p+1}$

15. A lady borrowed sh. 32000 from a bank which charged compound interest at a rate of 10 p.a. If he repaid all the money into two years how much money did he pay back?
- A. sh. 6720  
B. sh. 6400  
C. sh. 38400  
D. sh. 38720

16. A bridge is 270m long. A racing car took 9 seconds to cross over the bridge. What was its speed in km/h?
- A. 30km/h  
B. 108km/h  
C. 300km/h  
D. 90km/h

17. A lorry weighs 10200kg when loaded with bags of maize flour. When offloaded the lorry weighs 4.6 tonnes. If the average mass of each bag of maize flour was 70kg how many bags of maize flour did the lorry carry?
- A. 160  
B. 90  
C. 70  
D. 80

18. An artisan constructed a water trough using a sheet of metal as shown below.



What was the surface area of the trough in square metres?

- A.  $10.34\text{m}^2$   
 B.  $19.15\text{m}^2$   
 C.  $9.57\text{m}^2$   
 D.  $3.75\text{m}^2$
19. 124 electric poles were used to connect electricity between two villages. If the poles were placed 40m apart. What is the distance between the two villages in kilometres?  
 A. 4960km  
 B. 4.96km  
 C. 4920km  
 D. 4.92km
20. Construct triangle EFG in which line FG 8cm, angle FGE =  $30^\circ$  and angle EFG =  $50^\circ$ . Bisect angle EFG and let the bisector meet line EG at point X. Drop a perpendicular line from point X to meet line FG at point Z measure line ZG.  
 A. 3.7cm  
 B. 4.4cm  
 C. 4.2cm  
 D. 4.cm

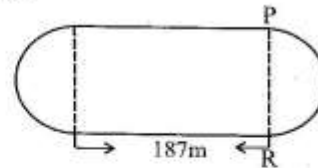
21. A quarter of the number of animals in a farm are cows. A third are goats. A fifth of the remainder are sheep and the rest are hens. If there are 72 hens how many animals are there in the farm?

- A. 72  
 B. 108  
 C. 144  
 D. 216

22. The temperature of water was  $62^\circ\text{C}$ . It was heated until the temperature rose by  $27^\circ\text{C}$ . It was then allowed to cool at a rate of  $7^\circ\text{C}$  per minute for 9 minutes. What is the temperature of water by the end of the 9th minute?

- A.  $89^\circ\text{C}$   
 B.  $27^\circ\text{C}$   
 C.  $26^\circ\text{C}$   
 D.  $37^\circ\text{C}$

23. The distance round the figure below is 616m



What is the length of the dotted line PR?

- A. 11m  
 B. 77m  
 C. 28m  
 D. 196m

24. Given that  $w = 5$ ,  $x = 6$ ,  $y = 3$  and  $z = 8$   
 What is the value of

$$\left( \frac{2x^2 + Zy}{3y - \frac{1}{2}x} \right) + wy?$$

- A. 8  
 B. 15  
 C. 13  
 D. 23

25. The marked price of a suit was sh. 2700. Joshua paid for the suit using 3 sh. -1000 notes and received a balance of sh. 750. What was the percentage discount given?

A. 50%                      B.  $16\frac{2}{3}\%$   
 C.  $12\frac{1}{2}\%$                       D. 25%

26. The number of lions, elephants and zebras found in a park are in the ratio 2: 5: 12 respectively. If there are 12 lions how many more zebras than elephants are there?

A. 30  
 B. 60  
 C. 42  
 D. 144

27. The price of a bale of second hand clothes was sh. 24000. It was raised by 10% for the two consecutive months. What was its price by the end of the second month?

A. sh. 2640  
 B. sh. 29040  
 C. sh. 4800  
 D. sh. 26640

28. Eighteen workers were hired to complete a project in 20 days. Three of them did not turn up. How many more days did it take to complete the project?

A. 24days  
 B. 6 days  
 C. 4 days  
 D. 5 days

29. The table below shows busfare of a bus travelling from Embu to Nairobi.

Embu				
60	Mwea			
100	60	Makutano		
160	120	90	Kenol	
200	160	100	50	Thika
250	200	140	100	40
Nairobi				

The fare for children is half that of adults. A man and his two children travelled from Embu to Nairobi via Kenol. How much less would they have paid had they used one express bus from Embu to Nairobi?

A. sh. 10  
 B. sh. 20  
 C. sh. 260  
 D. sh. 520

30. Solve the equation of  $W$  in the equation

$$\frac{5w+3}{5} + \frac{5-2w}{3} = 5$$

A.  $5\frac{1}{5}$                       B.  $1\frac{1}{5}$   
 C.  $1\frac{1}{2}$                       D.  $10\frac{1}{5}$

31. Rachel bought:

$1\frac{1}{2}$  beans for sh.100

$\frac{3}{4}$  l. of kerosine at sh. 120 per litre.

Two - 2kg packets of maize flour at sh. 120 per packet.

2kg rice at sh. 70 per kg and 2 cakes for sh.20. How much balance did she receive after paying for the items using sh. 1000 note?

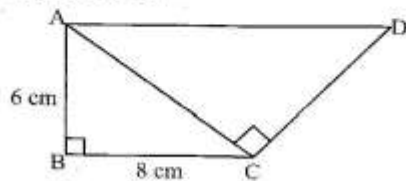
A. sh. 590  
 B. sh. 410  
 C. sh. 620  
 D. sh. 380

32. The table below shows charges for inland money orders.

Value of order in (sh)	Ordinary Money order commission	Express money order Commission
Upto 1000	45.00	70.00
1001 - 2500	70.00	125.00
2501 - 5000	95.00	185.00
5001 - 7500	120.00	245.00
7501 - 10000	155.00	310.00
10001 - 15000	280.00	390.00
15001 - 20000	310.00	470.00
20001 - 30000	360.00	550.00

A lady sent two express money orders each worth sh. 10100 and another ordinary money order worth sh7500. How much would he have saved had he bought one express money order for the total amount?

- A. sh. 800.00  
 B. sh. 350.00  
 C. sh. 510.00  
 D. sh. 150.00
33. A bookseller made a loss of 20% for selling a book for sh 960. At what price would he have sold it to make a profit of 20%  
 A. sh. 1440  
 B. sh. 960  
 C. sh.1152  
 D. sh. 1150
34. The area of triangle ACD in the figure below is  $120\text{cm}^2$ . What is the perimeter of figure ABCD?



- A. 56cm  
 B. 54cm  
 C. 24cm  
 D. 64cm

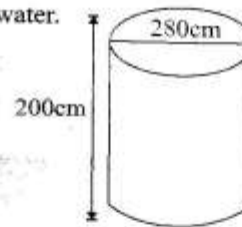
35. The scale used in a map reads 1: 250000. A section of a river drawn on the map measures 5cm. What is the actual length of the river in km?

- A. 0.125km  
 B. 1.25km  
 C. 125km  
 D. 12.5km

36. A salesman receives sh.9000 as his basic monthly pay. He also receives a commission of 8% on sales of goods above sh. 120000. What was the value of the goods sold in a month that he earned sh. 17800?

- A. sh. 110000  
 B. sh. 230000  
 C. sh.220000  
 D. sh. 239000

37. The cylindrical tank drawn below was full of water.



How many litres of water remained after three eighth of it was drawn?

- A. 203.5L  
 B. 19250L  
 C. 1925 L  
 D. 203500L
38. Simplify the inequality below;

$$\frac{2h + 1}{2} > \frac{5h - 5}{4}$$

- A.  $h < 7$   
 B.  $h > 7$   
 C.  $h < 3$   
 D.  $h > 3$

39. The table below shows arrival and departure time of a train travelling from Nairobi to Nakuru.

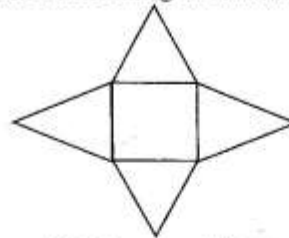
Town	Arrival and departure	
Nairobi	Departure	10.30 a.m
	Arrival	11.15am
Limuru	Departure	12.00 noon
	Arrival	12.40 p.m
Mai-mahiu	Departure	12.50p.m
	Arrival	1.30p.m
Naivasha	Departure	1.40 p.m
	Arrival	2.30p.m
Gilgil	Departure	2.40p.m
	Arrival	3.50 p.m
Nakuru	Arrival	3.50 p.m

If the distance from Limuru to Gilgil is 125km. At what speed did the train use to travel between the two towns?

- A. 25km/h  
 B. 50km/h  
 C. 75km/h  
 D. 72km/h
40. Akinyi deposited sh.80000 in a bank. After 2 years she withdrew sh. 86400 which included the interest earned. At what rate percent per annum was the bank giving simple interests?
- A. 10%  
 B. 4 %  
 C. 5 %  
 D. 8%
41. Work out:
- $$5\frac{1}{4} + 9\frac{3}{8} - 6\frac{1}{4} \div 1\frac{2}{3} + 9 \times 1\frac{1}{2}$$
- A.  $11\frac{1}{12}$                       B.  $20\frac{1}{6}$   
 C.  $24\frac{3}{8}$                         D.  $21\frac{5}{6}$

42. A pupil scored the following marks in five subjects. Mathematics 70%, Kiswahili 80%, Social studies 50%, English 75% and Science 85%. The information was recorded in a pie chart. How many more degrees represents the marks scored in English than in Social studies?
- A.  $50^\circ$   
 B.  $36^\circ$   
 C.  $18^\circ$   
 D.  $25^\circ$
43. How many days were there between 20 January to 5th April year 2020?
- A. 77  
 B. 75  
 C. 78  
 D. 76

44. Which one of the following is the correct number of faces, edges and vertices of the solid formed using the net drawn below?

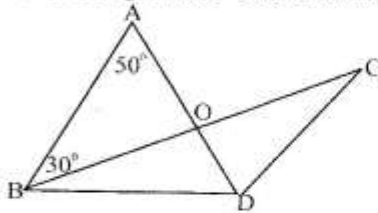


- |    | Faces | Edges | Vertices |
|----|-------|-------|----------|
| A. | 5     | 5     | 8        |
| B. | 5     | 8     | 8        |
| C. | 5     | 8     | 4        |
| D. | 5     | 8     | 5        |
45. A milk seller bought 60 litres of milk and packed it into 8 dl packets. He sold each packet at sh. 40 each. How much money did he get from the sale of the milk?
- A. sh. 75  
 B. sh. 3000  
 C. sh. 2400  
 D. sh. 19200

46. The marked price of a machine is sh. 40000. When bought in cash the customer is given a discount of sh. 4000. Apondo bought it on hirepurchase terms. The total amount paid was 20% more than the cash price. If he paid sh. 24000 as deposit and sh. 800 per month as instalment, how many months did he take to complete paying for the machine?

A. 18 months      B. 16 months  
C. 24 months      D. 13 months

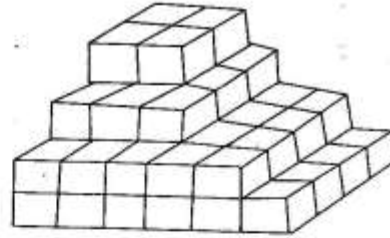
47. In the figure below line AB is parallel to line CD. Angle BAO = 50° and ABO = 30°



What is the size of angle COD?

A. 80°      B. 130°  
C. 100°      D. 150°

48. How many 1cm cubes have been used to make this stack.

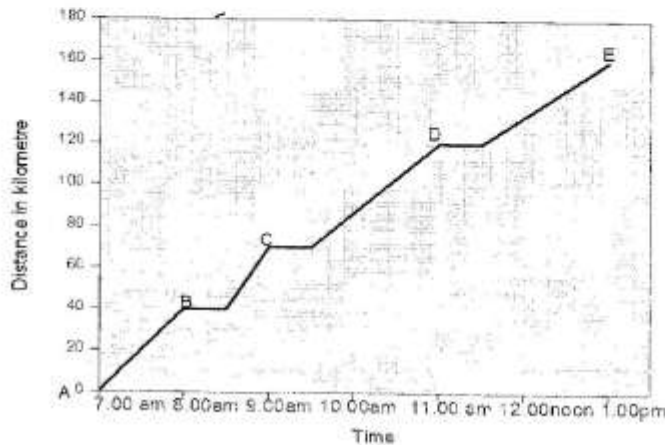


A. 57      B. 58  
C. 59      D. 60

49. A plain arrived at Nairobi on Friday at 0115 hrs. If the plane took 9 hrs 10 minutes to fly from Lagos to Nairobi, on which day and time in 12 hrs clock system had the plane left lagos.

A. Friday 4.05 A.m  
B. Friday 4.05 P.m  
C. Thursday 4.05 A.m  
D. Thursday 4.05 P.m

50. The graph below shows a journey followed by a motorist from town A to E through town B, C and D.



Between which two towns was his speed the highest

A. C - D      B. A - B  
C. B - C      D. D - E