ANESTAR VICTORY BOYS

FORM 1 APRIL HOLIDAY ASSIGNMENT 2021

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1. Evaluate (4mks)

$$\frac{1}{2}+\frac{1}{6}of\left(\frac{13}{18}-\frac{5}{9}\right)\div\frac{1}{3}$$

2. Express each of the following as a single fraction in its simplest form:
   a. $\frac{x+y}{3}-\frac{2x-y}{2}$ (3mks)
   b. $\frac{1}{x+1}-\frac{1}{x-1}$ (3mks)
3. The sum of the interior angles of a polygon is 1440^0. Find the number of the sides of the polygon. (4mks)
4. There are a number of unspecified numbers of cows and hens in a den. If there are total of 30 heads and 80 legs in the den, find the number of cows and hens in the den. (4mks)
5. The price of a commodity was increased in the ratio 5:4. After one month, the price of the same commodity was reduced in the ratio 7:8 to attract more customers. If the new price was sh. 35, calculate the price of the commodity before the increase. (4mks)
6. Take a number n, double it and add five to the result. If this result is doubled again, the new number is 22. Find n. (3mks)
7. The table below shows the amount of money charged for hiring a car for a given distance:

Distance covered (km)	10	20	30	40	50
Charges (shs)	75	100	125	150	175

   a) Draw a graph of the charges against the distance covered. (5mks)
   b) Use your graph to find:
      i. The standing charge (1mk)
      ii. How much money is charged for covering a distance of 28 km, 33 km, and 42 km? (3mks)
      iii. The distance covered if sh. 131.00, sh. 140.00 and sh. 190.00 is charged. (3mks)
8. Hussein was allowed a discount of 11% for goods worth sh. 8,000 and a discount of 8.6% for goods worth sh. 17,000. What percentage discount was she allowed altogether? (4mks)
9. Solve the following simultaneous equations:

a. $3x + 4y = 18$
$2x - y = 1$ Using graphical method. (5mks)

b. $-\frac{1}{2} + y = 5$
$\frac{1}{3}y = 5 - x$ Using elimination method (4mks)

10. John and Fred have goats. John has more goats than Fred and if Fred gives john one of his goats, john will have twice as many goats as Fred. If john gives Fred one of his goats, they will have an equal number of goats. How many goats does each have? (4mks)
11. Three towns P, Q, and R are such that Q is 150km from P on a bearing of 043^0. The bearing of R from P is 133^0 and the bearing of R from Q is 160^0. Calculate the distance of R from P, Q from R and the bearing of P from R. (6mks)
12. The length of an arc of a circle is $\frac{1}{10}$ of the circumference of the circle. If the area of the circle is $13.86cm^2$, find:
    a. The angle subtended by the arc at the centre of the circle. (4mks)
    b. The area of the sector enclosed by this arc. (2mks)
13. A Canadian on a Kenyan tour converted 5,600 Canadian dollars to Kenyan shillings at the rate according to the table below

Currency	Buying	Selling
1 Canadian Dollar (Can $)	52.0784	52.1572

While in the country, he spent sh. 3,500 per day on hotel accommodation, sh. 7,000 per day on self-drive car hire, sh. 15,000 on purchase of *curios*. He donated the balance to a children's home in Nairobi. If he was in Kenya for 20 days, calculate in Kenya shillings:

a) His total expenditure on accommodation and car hire. (6mks)

b) The amount of money he donated to the children's home. (4mks)

14. The results of a survey are as shown in the field book below

	Y	
	250	
	240	70D
C80	170	
	70	60B

A60	50	
	X	

If all the measurements are in metres, calculate the area of the field in:

i. Using a suitable scale, draw the map to show the survey area (4mks)

ii. m^2 (4mks)

iii. ha (2mks)

15. The ratio of John's earning to Musa's earnings is 5:3. If John's earnings increase by 12%, his new figure becomes Sh. 5,600. If the sum of their earnings is Sh.9,600:

a. Musa's earnings before the increase (2mks)

b. Find the corresponding percentage change in Musa's earnings. (4mks)

c. Ten men working six hours a day take 12 days to complete a job. How long will it take eight men working 12 days a day to complete the same job? (4mks)

****NICE HOLIDAYS******