

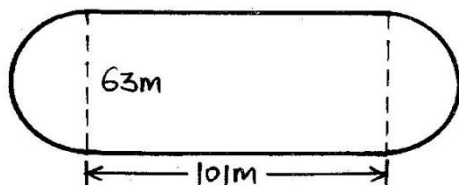
# EVALUATION SERIES - 003

## STD 8 - MID - TERM 2 - 2017

### MATHEMATICS

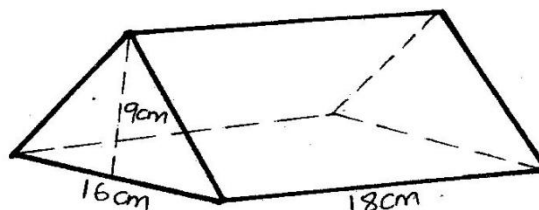
Time: 2 Hours

1. What is the total value of digit 4 in the number 64370102?  
A. Four million      B. 400000  
C. 4370102          D. Forty thousands
2. What is the product of 96806 and 975?  
A. 2033935          B. 94385850  
C. 95831             D. 9680975
3. What is the next number in the sequence?  
290, 226, 177, 141, \_\_\_\_\_  
A. 115      B. 105      C. 116      D. 25
4. The diagram below shows Karatina stadium. How many times should an athlete run round the track to cover a distance of 3000 m.  
(Take  $\pi = \frac{22}{7}$ )



- A.  $3\frac{3}{4}$       B. 15      C.  $4\frac{1}{2}$       D.  $7\frac{1}{2}$
5. A rectangular water tank has a base area of  $400\text{m}^2$  and a height of 5m. How much water would fill this tank in litres?  
A. 4 litres              B. 2000 litres  
C. 2000000 litres      D. 200 litres
  6. Add 785999 to 694723 and then write in words.  
A. One forty eight thousand seven hundred and twenty two  
B. One million four hundred and eighty thousand, seven hundred and twenty two  
C. Fourteen million, eighty thousand, seven hundred and twenty two  
D. One million forty eight thousand seven hundred and twenty two

7. In an election three candidates contested a seat. The winner got 17,568 votes which was 1830 votes more than the second candidate. The third got half of what the second candidates. If 105 votes were spoilt how many people had cast their votes?  
A. 41280              B. 15738  
C. 7869                D. 33306
8. What is the volume of the figure in  $\text{m}^3$ ?



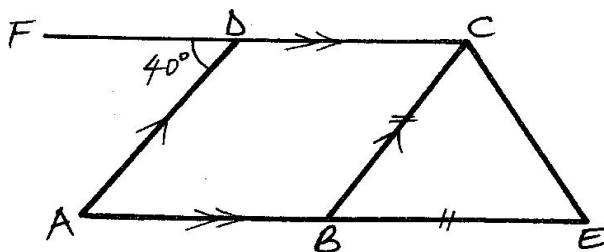
- A.  $1296\text{ cm}^3$               B.  $0.001296\text{ m}^3$   
C.  $0.0162\text{ m}^3$             D.  $0.02592\text{ m}^3$
9. A trader bought tomatoes at Sh 750 per crate. He sold the tomatoes in piles of 10 at Sh 20. If the tomatoes were in a crate that contained 600 tomatoes. What was his percentage profit. If he had used Sh 150 for transport.  
A.  $19\frac{2}{3}\%$       B. 20%      C. 16%      D.  $33\frac{1}{3}\%$
  10. The charges of sending a telegram are Sh 15.50 for the first ten words. Extra words were charged 75 cts each. A tax of 10% is charged in the total. Calculate the cost of sending the following telegram.  
**MARY MUTHONI BOX 85 NYERI SEND YOUR PHONE NUMBER AND SCHOOL FEES BY 31ST MAY.**  
A. Sh 22                      B. Sh 20  
C. Sh 16.25                  D. Sh 24.50
  11. Convert  $7\frac{3}{5}\%$  into a fraction.  
A.  $\frac{38}{500}$       B.  $\frac{19}{250}$       C.  $\frac{3}{75}$       D.  $\frac{19}{50}$

STD 8 - MATHEMATICS

12. What is the value of:-

$$\frac{7 + 4.86 \times 1.5 - 2.13}{4}$$

- A. 3.92    B. 10.06    C. 3.04    D. 4.34
13. What is the surface area of a cylinder whose base area is  $154\text{m}^2$  and a volume of  $1232\text{m}^3$ ?
- A.  $308\text{ m}^2$     B.  $354\text{ m}^2$   
C.  $506\text{ m}^2$     D.  $660\text{ m}^2$
14. A cylindrical tank has a base area of  $3.08\text{m}^2$  and a height of 250 cm. What is its capacity in litres?
- A. 770 litres    B. 7700 litres  
C. 770,000 litres    D. 7.7 litres
15. Kariuki bought the following items from a shop.
- 2 kg of rice at Sh 75 per kg*  
 *$3\frac{1}{2}$  packets of flour at Sh 120 per packet*  
*2 kg of sugar at sh 150 per kg*  
*2 packets of coffee for Sh 250*
- If he paid using one thousand five hundred shillings notes, how much more should he give the shopkeeper to get a balance of Sh 400?
- A. Sh 120    B. Sh 20  
C. Sh 380    D. Sh 1120
16. The figure below shows a parallelogram ABCD and a triangle BCE. ABE and FDC are straight lines. Angle ADF =  $40^\circ$  and BC = BE. What is the size of angle DCE?



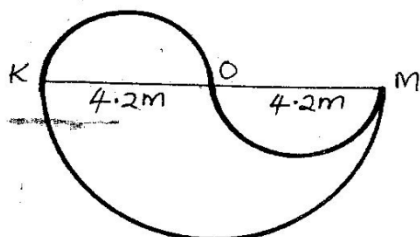
- A.  $140^\circ$     B.  $110^\circ$     C.  $70^\circ$     D.  $120^\circ$
17. What is the value of  $22^2 \div 4^2$ ?
- A.  $30\frac{1}{4}$     B. 30    C. 5.5    D. 30.5
18.  $\frac{3}{4}(\frac{1}{2} + \frac{2}{5} \div) - \frac{1}{5} \times \frac{3}{8}$
- A.  $2\frac{7}{10}$     B.  $2\frac{1}{40}$     C.  $1\frac{19}{20}$     D.  $1\frac{1}{5}$

19. The length of a table is 1 m 32 cm 5mm. What is its length in dm?

A. 13.25 dm    B. 28 dm  
C. 32.25 dm    D. 32.15 dm

20. A lorry carried 300 cartons of cooking fat. Each carton contains 150 sachets and each sachet has a mass of 100 grams. An empty carton has a mass of 800 grams. How many tonnes was the lorry carrying?
- A. 4.5    B. 4.74    C. 4.24    D. 4.84
21. Derline paid Sh 2700 for a dress after 10% discount was allowed. How much would she have paid for the dress had she been allowed a discount of 15%?
- A. Sh 2970    B. Sh 2835  
C. Sh 2550    D. Sh 135
22. Njege borrowed Sh 20000 form a bank that charged compound interest at the rate of 8% per year. If she repaid the loan after 2 years, how much interest did she pay?
- A. Sh 23200    B. Sh 3328  
C. Sh 3200    D. Sh 23328
23. The temperature of an ice is  $25^\circ\text{C}$  below the freezing point. It was heated until there was an increase of  $60^\circ\text{C}$ . What was the temperature of water after heating?
- A.  $35^\circ\text{C}$     B.  $85^\circ\text{C}$     C.  $65^\circ\text{C}$     D.  $100^\circ\text{C}$
24. What is the sum of faces, edges and vertices of triangular prism?
- A. 26    B. 20    C. 15    D. 13
25. Convert 54.375 into a fraction.
- A.  $\frac{435}{8}$     B.  $\frac{54375}{1000}$   
C.  $\frac{54375}{1000}$     D.  $\frac{543}{8}$
26. A tank was full of water. If  $50\frac{9}{10}\%$  of the water was removed. What amount of water remained in the tank as a decimal?
- A. 49.1%    B. 0.509%  
C. 0.491%    D. 5.09%
27. The number of animal in Kijanas ranch was 920 after the increase of 15%. How many animal were there in the farm before the increase?
- A. 230    B. 800    C. 1058    D. 120

28. In the figure below, KM passes through the centre of three semi-circles.  $KO = OM = 4.2$  m. What is the area?



- A.  $41.68 \text{ m}^3$       B.  $27.72 \text{ m}^3$   
C.  $12.76 \text{ m}^3$       D.  $34.65 \text{ m}^3$
29. A shopkeeper bought five trays of eggs to sell in his shop. On the way during transportation one tray fell down and all the eggs broke. If he had bought the eggs for Sh 1500 and later sold each egg for Sh 12. What was his percentage loss? (Each tray has 30 eggs)  
A. 4%    B.  $4\frac{2}{6}\%$     C. 20%    D.  $16\frac{2}{3}\%$
30. What is the value of x in the equation?  
$$\frac{3(x+4)}{2} - 5 = 10$$
  
A. 6    B. 7    C.  $8\frac{2}{3}$     D. 1
31. Seven chicken have a mean mass of 6.6 kg. Six of them weigh 3.8 kg, 7.9 kg, 8.1 kg, 7.3 kg, 6.6 kg and 5.1 kg. What is the mass of the seventh chicken?  
A. 6.6 kg    B. 7.4 kg  
C. 6.95 kg    D. 7.3 kg
32. Juma, John and Jack jointly sold a piece of land at Sh 360000. They shared the money in the ratio of 3:4:5 respectively. How much more did Jack get than Juma?  
A. 30000    B. 60000  
C. 240000    D. 90000
33. The cash price of a sewing machine was Sh12500. The hire purchase price was 20% more than the cash price. A tailor bought it hire purchase by paying a deposit of Sh 2500 and the others were paid in 10 month. How much was each instalment?  
A. Sh 1500    B. Sh 12500  
C. Sh 1250    D. Sh 3000

34. Construct triangle RST in which line  $RS=7\text{cm}$ ,  $ST=9\text{cm}$  and angle  $RST=120^\circ$ . Draw a circle touching the sides. What is the radius of the circle?

A. 1.8 cm    B. 1.5 cm  
C. 3.6 cm    D. 4.0 cm

35. A builder wanted to reach at the top of a building. He used a ladder which was 25 m and from the foot of the building to where the ladder was 7 m. How high is the wall?  
A. 8 m    B. 24 m  
C. 15 m    D. 10 m

36. Work out the inequality below and simplify:-

$$\frac{3x+4}{5} > \frac{2c-1}{3}$$

A.  $C < 17$     B.  $C < 7$   
C.  $7 < C$     D.  $C > 17$

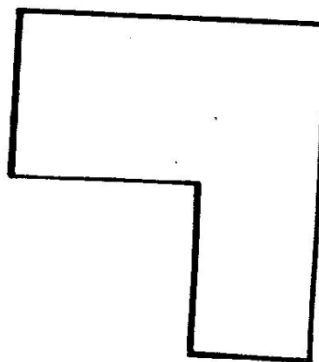
37. The ratio of Nyambura's mass to her sister is 5:4. If Nyambura's mass is 60 kg. What is their total mass?

A. 36 kg    B. 96 kg  
C. 48 kg    D. 108 kg

38. The ages of five children in a family were 19 yrs, 8 yrs, 11 yrs, 15 yrs and 4 yrs. What is the median age?

A. 4 yrs    B. 11 yrs  
C. 19 yrs    D. 8 yrs

39. The diagram below shows a plan of a house and is drawn to scale, determine the scale used.



If the actual perimeter of the plan is 220 m. What is the scale used?

A. 1 : 22    B. 1 : 100  
C. 1 : 1000    D. 1 : 10000



40. What is the value of:  $\frac{2t(q-2)^2}{k+1}$

when  $q = k - 3$ ,  $k = 8$  and  $t = 2q + k$

- A. 24    B. 144    C. 36    D. 12

41. A map is drawn to scale of 1:5000. On this map a school compound is represented by a trapezium whose parallel sides measure 6 cm and 4 cm. The perpendicular distance between the parallel sides is 3 cm. What is the actual area of the school compound in hectares?

- A. 3.75    B. 7.5    C. 4.5    D. 3.7

42. Construct parallelogram ABCD in which AB = 8.2 cm, BC = 6.4 cm and  $\angle ABC = 120^\circ$ . What is the length of the shorter diagonal?

- A. 12.4 cm    B. 5.7 cm  
C. 10.2 cm    D. 7.5 cm

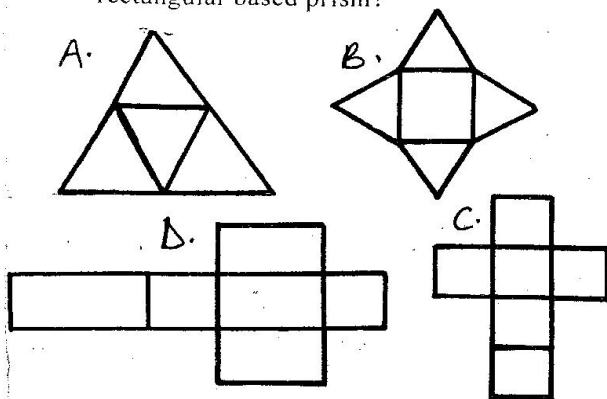
43. A salesman is paid a salary of Sh 4000 per month and a commission of 5% of the value of items he sells. In one month he sold goods worth Sh 45000. How much money did he earn that month?

- A. Sh 2250    B. Sh 6250  
C. Sh 4000    D. Sh 10250

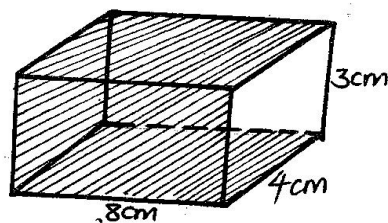
44. A motorist drives for  $2\frac{1}{2}$  hours at a speed of 60 km/hr on a murrum road. He then drove for another  $1\frac{1}{2}$  hrs at a speed of 90 km/hr on a tarmac road. What was his average speed for the whole journey?

- A.  $71\frac{1}{4}$  km/hr    B. 4 km/hr  
C. 80 km/hr    D. 57 km/hr

45. Which of the nets below would make a rectangular based prism?



46. What is the surface area of the open cuboid shown below?



- A.  $136\text{cm}^2$     B.  $112\text{cm}^2$     C.  $124\text{cm}^2$     D.  $96\text{cm}^2$

47. Eight men can dig a piece of land in 12 days. How many more men would be required to do the same job in 8 days?

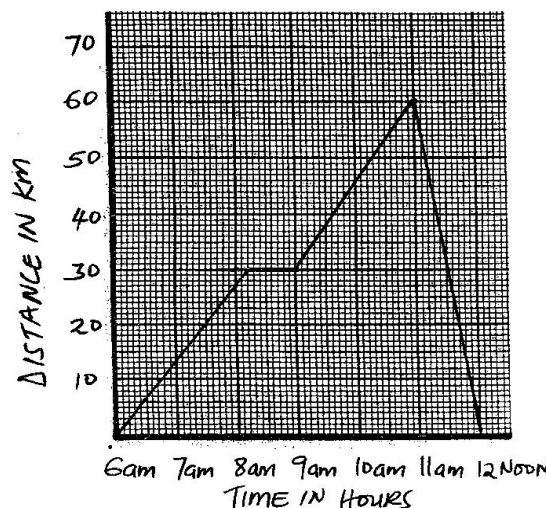
- A. 4    B. 12    C. 2    D. 96

48. Simplify the following expression in the simplest form:-

$$\frac{7}{8}(16x + 24y) + \frac{5}{6}(12x - 18y)$$

- A.  $24x - 6y$     B.  $24x + 6y$   
C.  $24x - 15y$     D.  $24x + 15y$

49. The graph shows a motorist journey from town A to B and back.



What is the motorist's average speed for the whole journey?

- A.  $19\frac{1}{2}$  km/hr    B. 24 km/hr  
C.  $119\frac{1}{2}$  km/hr    D. 20 km/hr

50. The number of pupils in Gatura primary school in 2016 was 756. In the year 2017, there was an increase in the ratio of 11:9. What is the new enrolment?

- A. 736    B. 776    C. 612    D. 924