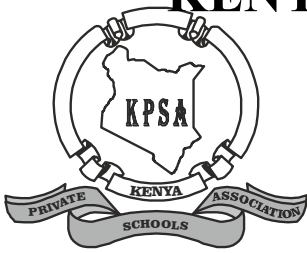


# KENYA PRIVATE SCHOOLS ASSOCIATION



**STD 8 - END -TERM 2 - 2022**

## MATHEMATICS

**Time: 2 hours**

**READ THIS INSTRUCTIONS CAREFULLY**

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 50 questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer, mark it on the ANSWER SHEET, not in this question booklet.

### HOW TO USE THE ANSWER SHEET

4. Use only an ordinary pencil.
5. Make sure that you have written on the answer sheet:  

YOUR INDEX NUMBER  
YOUR NAME  
NAME OF YOUR SCHOOL
6. By drawing a dark line inside the correct numbered boxes mark your full Index Number (i.e. School Code Number and three-figure Index Number) in the grid near the top of the answer sheet.
7. Do not make any marks outside the boxes.
8. Keep your answer sheet as clean as possible and **DO NOT FOLD IT**.
9. For each of the questions 1-50 four answers are given. The answers are lettered A, B, C, D. In each case only **ONE** of the four answers is correct. Choose the correct answer.
10. On the answer sheet, show the correct answer by shading the box in which the letter you have chosen is written.

#### **Example**

In the **Question Booklet**:

19. Work out :  $\frac{7.2 \times 0.35}{1.2}$

A. 0.21

B. 2100

C. 2.1

D. 21000

The correct answer is C

On the **Answer Sheet**:

16. [A] [B] [C] [D]    17. [A] [B] [C] [D]    18. [A] [B] [C] [D]    19. [A] [B]  [D]

In the set of ellipses numbered 19 the ellipse with C printed in it is crossed.

11. Your crossing **MUST** be within the ellipse. Make your crossing as **DARK** as possible.
12. For each question, **ONLY ONE** box is to be crossed in each set of four boxes.

1. Write in words 800702.12  
 A. Eight hundred thousand seven hundred and two twelve hundredth.  
 B. Eight million seven hundred and two and twelve hundredth.  
 C. Eight hundred thousand seven hundred and two and twelve thousandth.  
 D. Eighty thousand seven hundred and two and twelve hundredths.

2. Find the total value of digit 7 in the quotient between 0.4897 and 5  
 A. 0.0007                  B. 0.007  
 C. 0.07                      D. thousandths

3. What is the value of  
 $\frac{5}{8} + \frac{1}{8} \div \frac{2}{3} - \frac{3}{8}$   
 A.  $\frac{13}{16}$                       B.  $\frac{8}{16}$   
 C.  $\frac{7}{16}$                          D.  $\frac{9}{16}$

4. Chege bought the following items from the hardware  
 3 jembes @ sh 250  
 5 pangas @ sh 150  
 2 spades for sh 330  
 A wheel barrow sh 2500  
 A hammer @ sh 320  
 How much balance did she get back after paying the bill using sh 5000?  
 A. sh 540                  B. sh 560  
 C. sh 20                    D. sh 350

5. Round off the numbers 773042 to the nearest ten thousand.  
 A. 770000                  B. 780000  
 C. 773000                  D. 774000

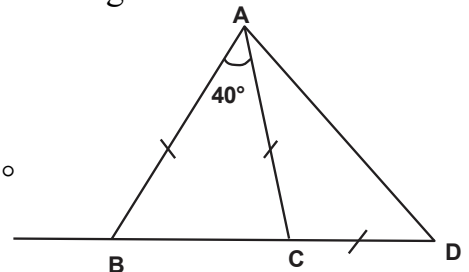
6. Arrange the fraction below in descending order  
 $\frac{7}{13}, \frac{9}{14}, \frac{5}{9}$  and  $\frac{6}{11}$   
 A.  $\frac{7}{13}, \frac{6}{11}, \frac{5}{9}, \frac{9}{14}$     B.  $\frac{9}{14}, \frac{7}{13}, \frac{6}{11}, \frac{5}{9}$   
 C.  $\frac{9}{14}, \frac{5}{9}, \frac{6}{11}, \frac{7}{13}$     D.  $\frac{9}{14}, \frac{5}{9}, \frac{7}{13}, \frac{6}{11}$

7. What is the sum of all the edges of a closed cube whose total surface area is  $384\text{cm}^2$ .  
 A. 64cm                      B. 96cm  
 C. 48cm                      D. 80cm

8. In a KPSA examination test that was marked out of 40. Joseph scored 70%. What was the raw marks?  
 A. 14                          B. 70  
 C. 37                          D. 28

9. In the figure below the line  $AB=AC=CD$ . Angle  $BAC=40^\circ$ . What is the value of angel BAD?

- A.  $75^\circ$   
 B.  $70^\circ$   
 C.  $35^\circ$   
 D.  $110^\circ$



Working Space

10. Solve for  $x$

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

- A.  $1\frac{4}{5}$                       B. 2  
C.  $1\frac{1}{3}$                          D.  $1\frac{1}{2}$

11. A tank holds 800 litres a tap puts water in the tank at the rate of 250ml per the minute, how much water will be in the tank in litres after 3hours.

- A. 755litres                  B. 845litres  
C. 45litres                    D. 1250litres

12. What is the value of

$$\frac{3(4^2 + 3^2) + 5 \times 6}{7}$$

- A.  $64\frac{4}{7}$     B.  $15\frac{5}{7}$     C. 18    D. 15

13. The scale on a map is 1:50,000. What distance in kilometres would be represented by a rod measuring 4cm on the map?

- A. 2km                         B. 12km  
C. 10km                        D. 8km

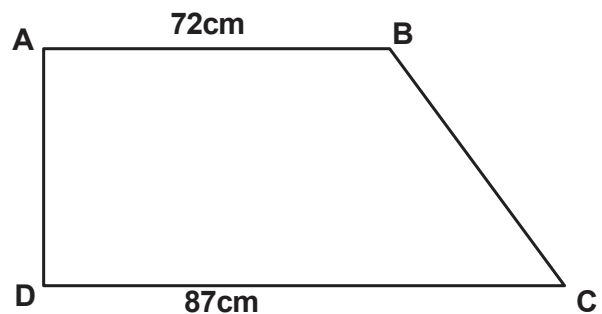
14. Musa is  $p$  years old now. He is  $q$  years older than her daughter write an expression to show the sum of their ages in 15 years time.

- A.  $p + q + 15$               B.  $2p + q + 30$   
C.  $2p - q + 30$             D.  $2p + q + 15$

15. A plane left Mombasa at 2145hour on Tuesday and took 2 hours 35 minutes to reach Kampala where it stopped for 1 hour 20 minutes . It left Kampala and took 1 hour 50 minutes to Mwanza. At what time in am/pm system did it reach Mwanza?

- A. 2.30pm                    B. 3.30pm  
C. 2.10pm                    D. 3.30am

16. The area of the Trapezium ABCD below is  $636\text{cm}^2$ . The length of  $AB=72\text{cm}$  and that of  $DC= 87\text{cm}$ .



What is the length of BC?

- A. 8cm                         B. 15cm  
C. 17cm                        D. 25cm

17. A salesman earns a salary of sh. 72000 plus 3% commission on sales of goods above sh. 100, 000. In one month the salesman earned a total of sh. 79200. What was the value of goods he sold that month?

- A. Sh. 2, 640, 000            B. Sh. 240,000  
C. Sh. 340,000                D. Sh. 124,000

Working Space

18. Simplify  $\frac{3(2x - 3y) + 4(3x + 2y)}{2(3x - 4y) + 3(x + 3y)}$

A.  $\frac{18x - y}{9x + y}$

B.  $\frac{2x + y}{x + y}$

C.  $\frac{2x + y}{x - y}$

D.  $\frac{18x + 17y}{9x + 17y}$

19. A coffee general meeting was attended by 2670 people. The number of women was twice that of children and 450 less than that of men. How many men were there?

A. 885  
C. 1338

B. 444  
D. 1432

20. In Maxwell Primary school the ratio of boys to girls is 3:4. later the number of boys increased in the ratio 3:2. How many pupils are there if the population was 700 initially?

A. 450  
C. 950

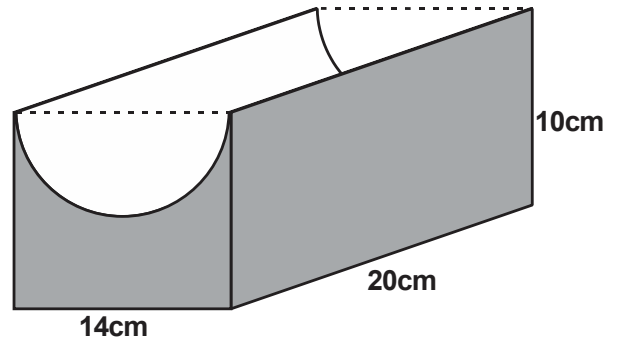
B. 850  
D. 600

21. 0.2 of the oranges in a bag were rotten, 0.5 of the remainder were not ripe. How many oranges were ripe if there were 300 oranges in the bag?

A. 150  
C. 120

B. 240  
D. 60

22. The figure below represents a solid object in a form of a rectangular block with semi circular groove.

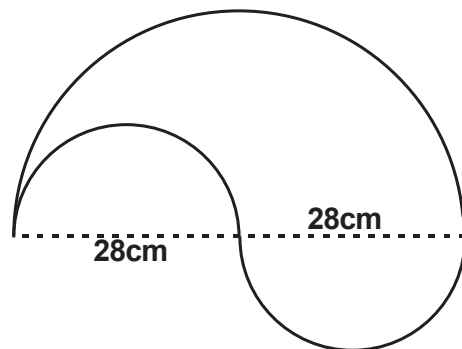


What is the volume of the solid in  $\text{cm}^3$ ?

A.  $2800\text{cm}^3$   
C.  $2360\text{cm}^3$

B.  $1260\text{cm}^3$   
D.  $1540\text{cm}^3$

23. Calculate the perimeter of the figure below. Take  $\pi = \frac{22}{7}$



A. 144cm  
C. 264cm

B. 166cm  
D. 176cm

Working Space

24. What is the value of  $\frac{1\frac{1}{4} \times 2\frac{1}{2}}{3\frac{1}{2} - 2\frac{1}{4}} =$

- A.  $2\frac{1}{2}$     B.  $\frac{2}{5}$     C.  $\frac{5}{8}$     D.  $\frac{9}{28}$

25. Find the value of  $\frac{1}{4}$  of  $\left(\frac{2a^2 - bd}{cd - a}\right)$

If  $a = 6$ ,  $b = 4$ ,  $c = 5$ , and  $d = 2$

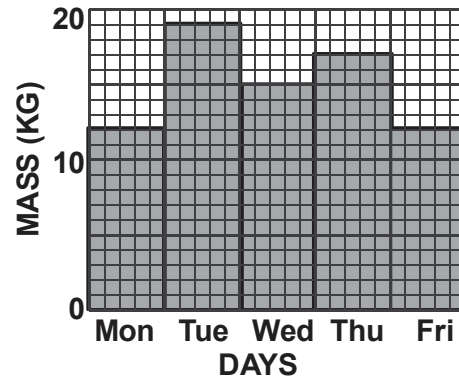
- A. 4                      B. 1  
C. 8                      D. 16

26. Construct a triangle PQR given that line PR=RQ line PQ= 7cm and angle PRQ=70°. Draw a circle touching triangle. What is the measurement of the diameter.

- A. 10.8cm              B. 7.4cm  
C. 5.4cm                D. 4.0cm

27. The bar graph below show the number of kilogram of sugar consumed by a school in five days

**SUGAR CONSUMPTION**



In which pair of consecutive days was the total consumption the highest

- A. Mon and Tue              B. Tue and Wed  
C. Wed and Thur            D. Thur and Fri

28. From which of the following set of lines can a right triangle be drawn?

- A. 7cm, 24cm, 27cm  
B. 15cm, 36cm, 39cm  
C. 3cm, 4cm, 7cm  
D. 10cm, 21cm, 26cm

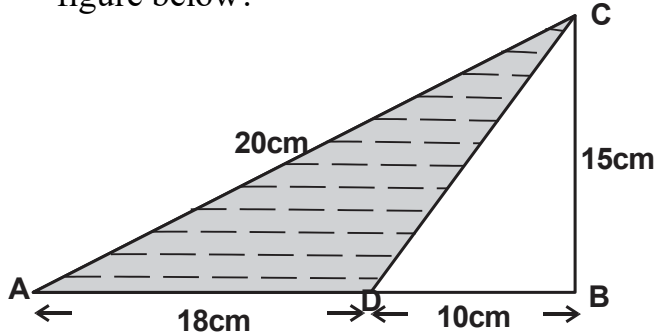
29. Work out  $6 + 0.02 \div 4 - 0.001 \times 100$

- A. 5.905                      B. 14.995  
C. 149.95                    D. 1.4995

Working Space

30. Reuben's village uses  $0.5\text{m}^3$  of milk daily. How many litres do they use in the month of February 2020?
- A. 14500l      B. 14000l  
C. 1450l      D. 1400l

31. What is the area of the shaded part in the figure below?

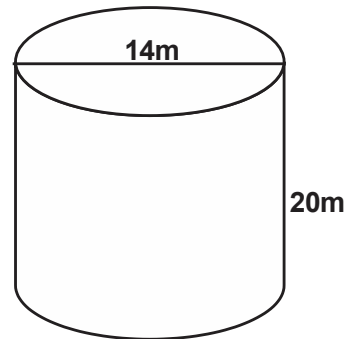


- A.  $120\text{cm}^2$       B.  $180\text{cm}^2$   
C.  $135\text{cm}^2$       D.  $150\text{cm}^2$
32. An empty pick-up has a mass of 2.4 tonnes. The mass of the pick-up loaded with fifty cartons of books is 3.65 tonnes. Calculate the mass of one book in grammes if each carton contains one hundred books.
- A. 250      B. 50  
C. 25      D. 500
33. Mary covered a distance of 90metres in an average speed of  $18\text{km/h}$ . What is the speed in  $\text{m/s}$
- A.  $36\text{m/s}$       B.  $24\text{m/s}$   
C.  $18\text{m/s}$       D.  $5\text{m/s}$

34. Construct a triangle xyz in which  $xy=7.2\text{cm}$ ,  $yz= 5.9\text{cm}$  and  $zx=6.2\text{cm}$ .

What is the size of angle xyz?

- A.  $125^\circ$       B.  $55^\circ$   
C.  $45^\circ$       D.  $100^\circ$
35. The figure below represents a closed cylindrical container. It was painted all round except its bottom. What is the area of the container painted?

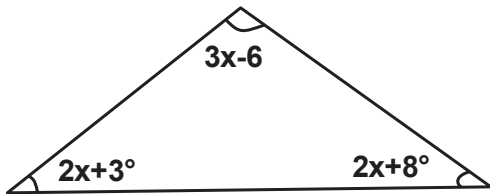


- A.  $1034\text{m}^2$       B.  $1188\text{m}^2$   
C.  $978\text{m}^2$       D.  $1078\text{m}^2$
36. A drum is  $\frac{3}{5}$  full of water after 60 litres was drawn from the drum it became  $\frac{1}{3}$  full. What is the capacity of the drum?
- A. 300 litres      B. 180 litres  
C. 200 litres      D. 225 litres

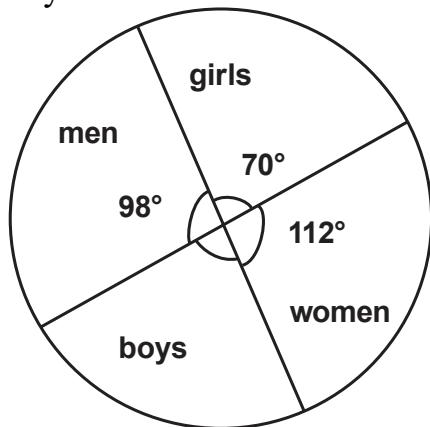
Working Space

37. 18 men can complete constructing a house in 9 days. However the job need to be completed in 6 days how many more men need to be hired?  
 A. 24                      B. 9  
 C. 27                      D. 6

38. What is the sum of the largest and smallest angle in the figure below?



- A.  $142^\circ$                       B.  $132^\circ$   
 C.  $122^\circ$                       D.  $128^\circ$
39. The pie chart below shows the number of people present in a wedding party, how many more women than men were there? If there are 180 pupils in the wedding party



- A. 7  
 B. 14  
 C. 49  
 D. 56

40. The cash price of a TV set is sh. 4800. The marked price is sh. 1200 more than the cash price. The hire purchase price of the same item is 20% more than marked price. Calculate the hire purchase price of the TV set?

- A. Sh 9000                      B. Sh 6600  
 B. Sh 8800                      D. Sh 7200

41. Juma deposited sh 84000 in a tank which gave interest at the rate of 10% per annum. How much money altogether did she have in the bank at the end of 7 months?

- A. Sh 88900                      B. Sh 4900  
 C. Sh 58800                      D. Sh 142800

42. The marked price of a pair of trouser was sh 2500. A buyer was allowed a discount of 10%. How much money did he pay?

- A. Sh 250                      B. Sh 2000  
 C. Sh 2250                      D. Sh 2750

43. Work out  $\frac{0.27 \times 1.2}{0.3 \times 3.6}$

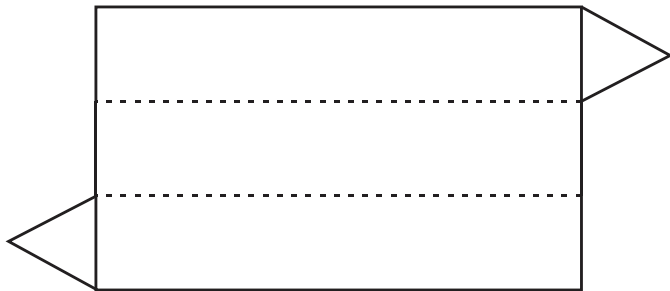
- A. 3                                      B. 0.003  
 C. 0.03                                  D. 0.3

Working Space

44. An aeroplane left town C at 2150hr on Wednesday. It took 3hours 30minutes to reach town F. When did it reach town F?

- A. Wednesday 1.30pm
- B. Wednesday 1.30am
- C. Thursday 1.30pm
- D. Thursday 1.30am

45. When the net below is folded along the dotted lines it will form a



- A. Rectangular based pyramid
- B. Triangular based pyramid
- C. Rectangular prism
- D. Triangular prism

46. The table below shows the items bought by two pupils, Susan and Ahmed the amount paid by each of them in a shop.

	Sugar	Rice	Meat	Total
Susan	4kg	2kg	3kg	sh 1580
Ahmed	2kg	1kg	-	Sh 340

What was the price of 1kg of meat?

- A. Sh 150
- B. Sh 300
- C. Sh 413
- D. Sh 1240

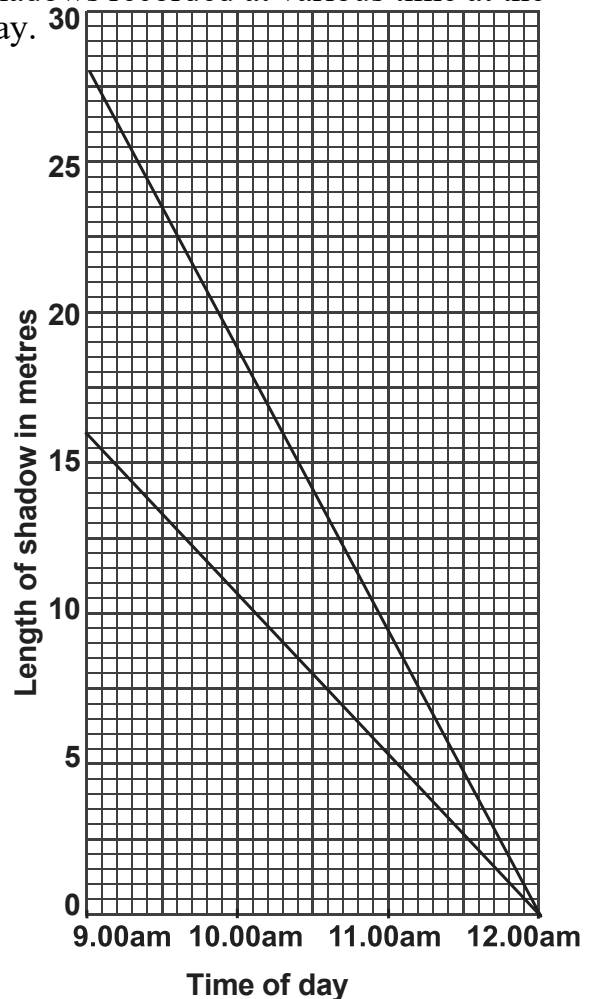
47. The temperature of water was 22°C. Rono bought the water and put it in deep freezer the temperature drop to -12°C. What was the drop in the temperature?

- A. 340°C
- B. 10°C
- C. 24°C
- D. 8°C

48. What is the value of  $1 \div 0.002$

- A. 50
- B. 500
- C. 5
- D. 5000

49. The line graph shows the length of two shadows recorded at various time at the day.



What was the difference in the length of the two shadows at 11.30am?

- A. 7.0m
- B. 4.5m
- C. 2.5m
- D. 20

50. Which one of the following shapes below should be drawn next to continue with the pattern below?

