

DISTINCTION SCHOOL BASED ASSESSMENT TEST

STANDARD EIGHT - 2023

MATHEMATICS

8

PREMIER

Time: 2 Hours



002

1. What is 6,000,040.37 in words?
- A. Six hundred thousand and point three seven
B. Six million and forty and thirty seven hundredths
C. Six million, four hundred and thirty seven
D. Six hundred thousand and forty seven hundredths

2. What is the place value of digit 6 after working out 0.243×3.4 ?
- A. Thousandths B. Hundredths
C. Tenths D. Ones

3. Find the value of $(\sqrt{1\frac{9}{16}} + 12^2 - \sqrt{1.69})$

- A. 132.25 B. 11.95
C. 143.95 D. 143.86

4. What is the sum of the 6th and 7th number in the series below
115, 117, 120, 125, _____
- A. 132 B. 275
C. 299 D. 257

5. Which of the following is a right angled triangle?
- A. 9cm by 6cm by 9cm
B. 11cm by 13cm by 8cm
C. 14cm by 48cm by 50cm
D. 9cm by 12cm by 15cm

6. The table below shows the average sales of vegetables by a farmer in five days.

Day	Mon	Tue	Wed	Thur	Fri
Amount in Kg	15	28	20	24	18

In which of the consecutive days was the total sales LEAST?

- A. Monday, Tuesday, Wednesday
B. Monday, Wednesday, Friday
C. Wednesday, Thursday, Friday
D. Tuesday, Wednesday, Thursday
7. A map is drawn to a scale of 1:30000. What is the distance in kilometres of a road which is 50cm on the map?
- A. 15km B. 45km
C. 150000km D. 60km

8. A TV dealer allowed a 15% discount for all TV sets in the shop. Diana got a discount of Sh. 2250 on a TV set. What was the price of the set before the discount?

- A. Sh. 12750 B. Sh. 3750
C. Sh. 15000 D. Sh. 17250

9. Find the product of the LCM and GCD of 8 and 6

- A. 48 B. 24
C. 72 D. 96

10. The area of a square is $56\frac{1}{4}\text{m}^2$. Find its perimeter.

- A. 225m B. 220m
C. 30m D. $7\frac{1}{4}\text{m}$

11. Find the value of

$$\frac{0.16 \times 14.35}{0.28}$$

- A. 8.2 B. 1
C. 820 D. 0.82

12. What is 2806198 rounded off to the nearest tens?

- A. 2806190 B. 2806210
C. 2806208 D. 2806200

13. What is the difference between the LCM of 8, 12 and 18 and the GCD of 16, 24 and 36?

- A. 4 B. 76
C. 68 D. 288

14. Okuta spent $\frac{1}{8}$ of his salary on rent, $\frac{2}{3}$ on food and $\frac{1}{2}$ of the remainder on school

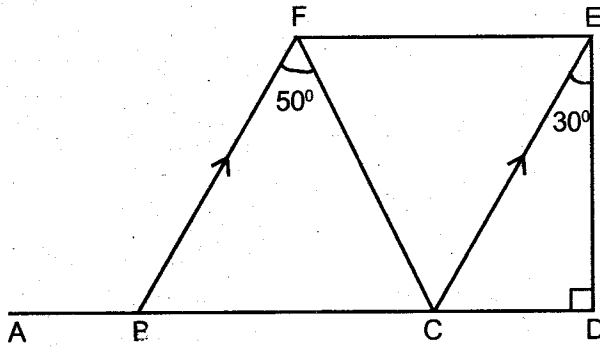
fees, and saves the rest. If he saved Sh. 2000, how much more was his salary than amount of money spent on school fees?

- A. Sh. 38600 B. Sh. 2000
C. Sh. 19200 D. Sh. 17200

15. A brick has a mass of 3200g. How many such bricks will be needed to make 9.6 tonnes?

- A. 30000 B. 400
C. 3000 D. 12000

16. In the figure below BF is parallel to CE and ABCD is a straight line. Find the size of angle ABF



- A. 50° B. 150°
 C. 140° D. 120°
17. What is the length of a row of maize plants if there are 46 plants in a row with a space of 0.8m between the plants?
- A. 36m B. 575m
 C. 3.68m D. 57.5m
18. Decrease Sh. 200 by 30%
- A. Sh. 260 B. Sh. 140
 C. Sh. 170 D. Sh. 175
19. Arrange the following fractions in descending order.

$$\frac{1}{2}, \frac{2}{7}, \frac{5}{6}, \frac{3}{4}$$

A. $\frac{2}{7}, \frac{1}{2}, \frac{3}{4}, \frac{5}{6}$

B. $\frac{1}{2}, \frac{3}{4}, \frac{5}{6}, \frac{2}{7}$

C. $\frac{3}{4}, \frac{5}{6}, \frac{2}{7}, \frac{1}{2}$

D. $\frac{5}{6}, \frac{3}{4}, \frac{1}{2}, \frac{2}{7}$

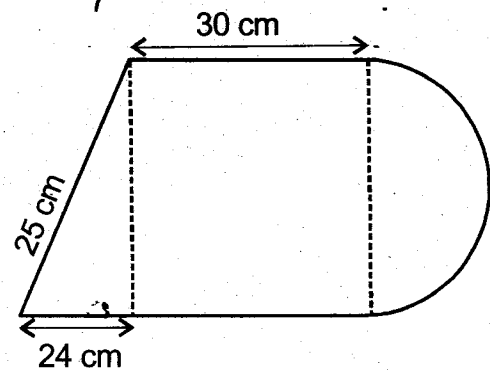
20. Musyoka and Ouma shared money in the ratio 3:5 respectively. Ouma received Sh. 300 more than Musyoka. What was the total amount of money shared?
- A. Sh. 2400 B. Sh. 800
 C. Sh. 1200 D. Sh. 1600
21. Jamilla bought the following items from a shop.
- 2kg of sugar @ Sh. 100
 3kg of rice @ Sh. 120
 2kg of meat for Sh. 480
 3 loaves of bread @ Sh. 40
- If she gave Sh. 1500 to the shopkeeper, how much money should she give the shopkeeper so as to get a balance of Sh. 400?
- A. Sh. 60 B. Sh. 40
 C. Sh. 340 D. Sh. 1160

22. Find the value of x in

$$\frac{2x - 3}{3} + 2x = 15$$

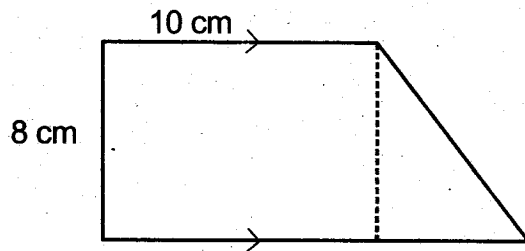
- A. 5 B. 6
 C. 8 D. 9
23. A rectangular water tank contains 5760 litres of water to a depth of 80cm. If the length of the tank is 3 metres, what is the width of the tank?
- A. 240m
 B. 2.4m
 C. 0.24m
 D. 24m
24. Work out the perimeter of the figure below

(Take $\pi = \frac{22}{7}$)



- A. 131cm
 B. 95cm
 C. 120cm
 D. 84cm
25. A trader bought a shirt for Sh. 400. At what price must he sell it so as to make a profit of 60%
- A. Sh. 460
 B. Sh. 340
 C. Sh. 800
 D. Sh. 640
26. Construct triangle FGH in which $FG=3.9\text{cm}$, angle $FGH=30^\circ$ and angle $GHF=75^\circ$. Which type of triangle have you constructed
- A. Right-angled triangle
 B. Isosceles triangle
 C. Scalene triangle
 D. Equilateral triangle
27. The volume of a cylindrical tank is 628cm^3 . The height of the tank is 8cm. What is the diameter of the tank? (Take $\pi = 3.14$)
- A. 10cm
 B. 5cm
 C. 25cm
 D. 50cm

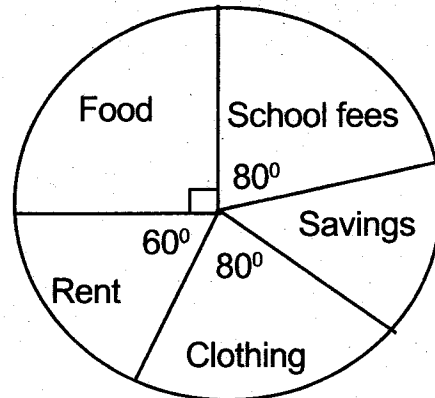
28. The diagram below is a trapezium. Its area is 112cm^2 and its height is 8cm . If one of the parallel sides is 10cm , find the length of the other parallel side



- A. 12cm B. 16cm
 C. 18cm D. 28cm
29. A painter wanted to reach the wall of a house 16m high. He placed a ladder 12m away from the wall. How long was the ladder?
 A. 12m B. 20m
 C. 40m D. 18m
30. The mean of ten numbers is 6 . Nine of the numbers are $4, 5, 8, 6, 5, 3, 7, 8, 7$. What is the product of the mode and the median?
 A. 35 B. 39
 C. 45.5 D. 42
31. Using a ruler and a pair of compasses, construct a triangle PQR such that $QR=4\text{cm}$, $PQ=6\text{cm}$ and angle $PQR=105^\circ$. Construct the bisector of angle PQR to meet PR at T . What is the size of angle PTQ ?
 A. 55.5° B. 98°
 C. 83° D. 29.5°
32. What is the value of $\frac{a(bc + d^2)}{b^2 - a^2}$
 if $a=2$, $b=3$, $c=5$, $d=6$
 A. $20\frac{2}{5}$ B. $2\frac{2}{5}$
 C. $26\frac{2}{5}$ D. $25\frac{2}{5}$
33. A father who is now 45 years old was exactly two and a half times as old as his daughter five years ago. How old is her daughter now?
 A. 21 years B. 13 years
 C. 16 years D. 18 years
34. A bus left Kitale at 0930hrs and reached Nairobi 1625hrs . How long did the journey take?
 A. $6\text{hrs } 15\text{min}$ B. $6\text{hrs } 55\text{min}$
 C. $5\text{hrs } 15\text{min}$ D. $4\text{hrs } 55\text{min}$

35. Jane earns a salary of Sh. 4000 per month. She also earns 5% commission on goods sold over Sh. 10000 . One month, she sold goods worth Sh. 18000 . What was her total earnings that month?
 A. Sh. 4400 B. Sh. 5600
 C. Sh. 5400 D. Sh. 4900

The pie-chart below shows how Kiptoo spent his salary of Sh. 5400 . Use it to answer questions 36 and 37



36. How much does he save?
 A. Sh. 450 B. Sh. 710
 C. Sh. 600 D. Sh. 750
37. How much more does he spend on food than on school fees?
 A. Sh. 1350 B. Sh. 150
 C. Sh. 540 D. Sh. 900
38. The hire-purchase price of a wardrobe is 20% more than the marked price. Amina bought a wardrobe on hire purchase. She paid a deposit of sh. 14400 and Sh. 800 equal monthly instalments for one year. How much more was the hire-purchase price than the marked price?
 A. Sh. 20000 B. Sh. 9600
 C. Sh. 4000 D. Sh. 6720
39. Abdul travelled from Isiolo to Nairobi a distance of 360km in $2\frac{1}{2}$ hrs. What was his speed in m/s ?
 A. 60m/s B. 72m/s
 C. 120m/s D. 40m/s
40. A clock gains 3 seconds every hour. If the clock was set on a Monday at 11.40am , what time does it show on the following Sunday when the correct time is 7.40am ?
 A. 7.33am
 B. 7.47am
 C. 7.47pm
 D. 7.33pm

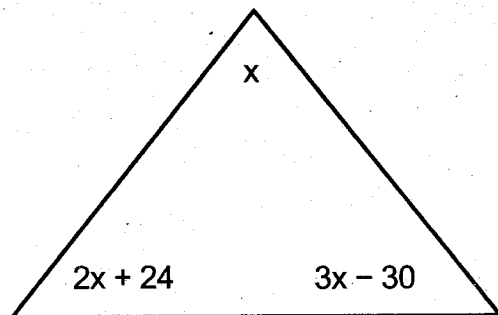
41. Sarah borrowed Sh. 620000 to buy a car. The bank charged a simple interest of 8% p.a. How much interest did she pay in 2 years?

- A. Sh. 53568 B. Sh. 49600
C. Sh. 99200 D. Sh. 669600

42. The temperature of a frozen ice rose from 10°C below zero degrees to a reading of 40°C after being heated. What was the rise in temperature?

- A. 30°C B. 40°C
C. 60°C D. 50°C

43. Find the size of the smallest angle.



- A. 31° B. 21°
C. 63° D. 56°

44. What is the value of

$$13\frac{3}{5} - 4\frac{1}{2} \times 2\frac{2}{3} + \frac{1}{12} \text{ of } 3\frac{3}{7}$$

- A. $\frac{48}{70}$ B. $1\frac{31}{35}$
C. $1\frac{11}{35}$ D. $1\frac{80}{105}$

45. Hussein received a 5% salary increment in January 2011. If his salary was Sh. 18200 in the month of December 2010, what was his new salary?

- A. Sh. 16190 B. Sh. 19110
C. Sh. 18305 D. Sh. 18000

46. The following are properties of a quadrilateral

- (i) All sides are equal
(ii) Opposite sides are parallel
(iii) Diagonals bisect each other at right angles

(iii) Diagonals are not equal
The above properties apply to

- A. Parallelogram
B. Trapezium
C. Square
D. Rhombus

47. Three bells are rung at intervals of 24, 30, 40 minutes. They rung simultaneously at 10.30am. At what time would they ring together again?

- A. 12.30am B. 12.30pm
C. 12.04pm D. 12.04am

48. Six men were hired to complete a piece of work in 8 days. How many more men will be required to finish the same work in 3 days?

- A. 16 B. 10
C. 4 D. 8

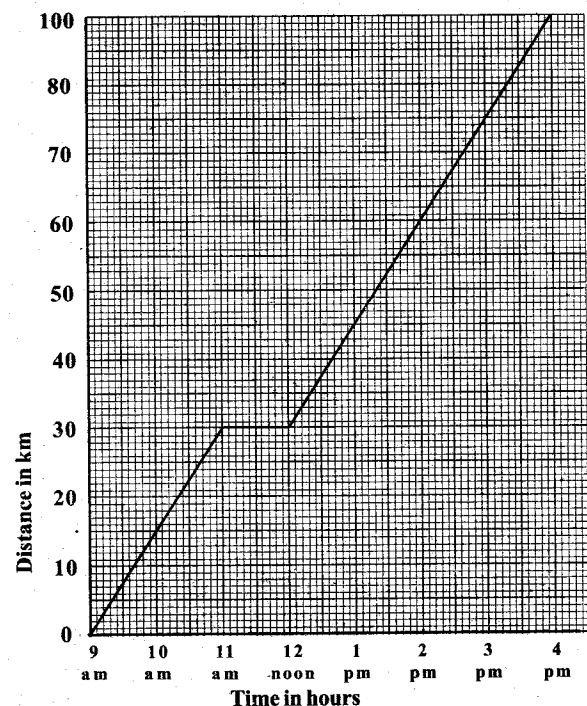
49. The table below shows newspaper sold in four days of a week.

	Mon	Tue	Wed	Thur
Nation	120	154	132	164
Standard	60	112	101	119
The Star	87	62	96	79

What is the difference between number of Nation newspaper sold on the first two days and the total number of Standard newspapers and The Star sold on Thursday?

- A. 36 B. 76
C. 198 D. 274

The graph below shows part of the journey made by a cyclist. Use it to answer question 50



50. What was his average speed for the whole journey?

- A. $14\frac{2}{7}$ km/hr B. $16\frac{2}{3}$ km/hr
C. $12\frac{6}{7}$ km/hr D. 20km/hr