

STD 8 - YEAR 2016

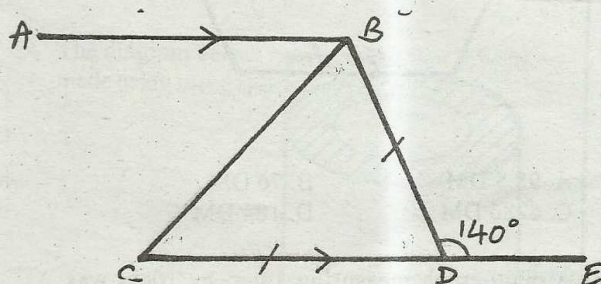
MATHEMATICS

READ THESE INSTRUCTIONS CAREFULLY

Time: 2Hrs

1. Use only an ordinary pencil.
2. Make sure that you have written on the answer sheet:-
 (I) YOUR NAME (II) NAME OF YOUR SCHOOL
3. For each question show the correct answer by drawing line in the brackets in which the letter you have chosen is written.

1. Which one of the following numbers is two million one thousand and eleven and fifteen thousandths in symbols?
 A. 2001011.150 B. 2001011.015
 C. 2100011.015 D. 2001011.15000
2. What is the total value of digit nine obtained after multiplying 0.017 and 23?
 A. Hundredths B. 0.9
 C. $\frac{9}{100}$ D. 0.391
3. Simiyu's stride is $\frac{4}{5}$ of a metre. How many strides would he made to cover 40 metres?
 A. 32 B. 50
 C. $39\frac{1}{5}$ D. 100
4. In the figure below CDE is a straight line. AB is parallel to CD and angle BDE = 140° .



- What is the measure of angle ABC?
- A. 40° B. 140°
 C. 70° D. 100°
5. A poultry farmer sold 24 trays of eggs in the month of September. If this was 90% of the eggs collected, how many eggs were not sold? (1 tray = 30 eggs)
 A. 800 B. 648 C. 72 D. 80

6. Work out the following:
 $48 \times 81 \div 27 - 8 + 12 \times 6 =$
 A. 208 B. 888
 C. 108 D. 880
7. Which one of the following statement is not true about quadrilaterals?
 A. A square is a rhombus
 B. A parallelogram is a rectangle
 C. A rhombus is a parallelogram
 D. A square is a rectangle
8. Which of the following expressions represents twice the sum of t and 7 divided by 3?
 A. $\frac{2t+7}{3}$ B. $t+7 \div 3 \times 2$
 C. $\frac{2(t+7)}{3}$ D. $2t+7 \div 3$
9. What is the value of:

$$\frac{3^2(5^2 - 4^2) - 3^2?}{4^2 - 2^2}$$

 A. 6 B. 9
 C. 36 D. 3
10. The perimeter of a rectangle is 72cm. If the longer side of the rectangle is twice the width, find its area.
 A. 1152cm^2
 B. 288cm^2
 C. 12cm
 D. 324cm^2

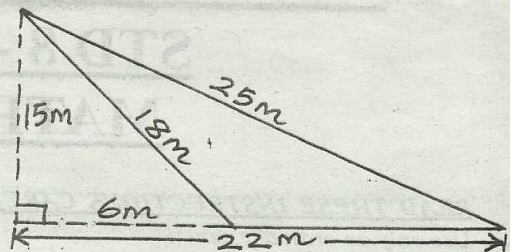
11. Using the line drawn below construct triangle XYZ in which angle XYZ = 60° and angle YXZ = 45°



What is the measure of line XZ?

- A. 6cm B. 6.7cm
C. 4.4cm D. 5.2cm
12. The area of the squares formed on the two shorter sides of a right angled triangle are 825cm² and 400cm². What is the area of the triangle formed on the hypotenuse?
A. 20cm B. 425cm²
C. 35cm D. 1225cm²
13. A child slept at 2215hr and woke up at 6.30am. For how long did she sleep?
A. 15 h 45 min
B. 7h 15 min
C. 8h 15 min
D. 8h 45 min
14. The price of a shirt was reduced by Sh 48. If this represented a 12% discount, what was the price of the shirt after the discount?
A. Shs 352
B. Shs 400
C. Shs 328
D. Shs 57615
15. Given that $\frac{2}{3}x - 7$ and $8 - \frac{1}{6}x$ have the same value, find half of the value of x.
A. 18 B. 9
C. 30 D. 15
16. A cyclist covered 6km in 20 min. What was his speed in m/s?
A. 300m/s B. 30m/s
C. 5m/s D. 120m/s

17. Find the area of the figure below in ares.

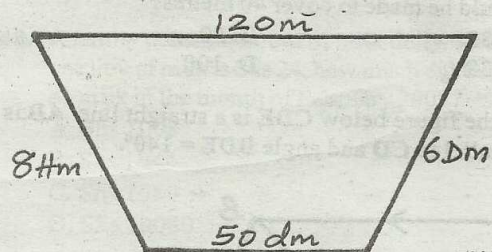


- A. 120cm² B. 165cm²
C. 144 ares D. 2.1 ares

18. A matatu left Mombasa at 0055h and took 6 hours 20 minutes to reach Salama. At what time did it arrive at Salama?
A. 5.25 pm B. 6.25 am
C. 6.15 am D. 7.15 am

19. Write 32.17 correct to three decimal places.
A. 32.178 B. 32.177
C. 32.170 D. 32.171

20. Find the area of the figure below in DM.

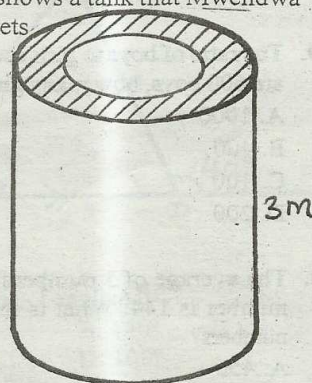


- A. 98.5 DM B. 76 DM
C. 6286 DM D. 184 DM

21. A photograph measuring 14cm by 10cm was enlarged so that the longer side measured 28cm. In what ratio was the area increased?
A. 28:29 B. 4:1 C. 1:4 D. 2:1
22. At a meeting $\frac{2}{5}$ of the attendant were women, $\frac{1}{3}$ of the remainder were men and rest were children. What fraction of the attendant were children?
A. $\frac{4}{15}$ B. $\frac{1}{5}$
C. $\frac{2}{5}$ D. $\frac{3}{5}$

23. The area of one end of a circular pipe is 4cm^2 . What length of the pipe will hold 2m^3 of water (answer in km)
- A. 500km B. 50km
C. 8000km D. 5km
24. The marked price of a radio is Sh 1200. Atieno bought it on hire purchase terms. The total amount of money she paid was 115% of a marked. If she paid a deposit of Sh 400 and paid the rest in 7 monthly instalments. How much was each monthly instalment?
- A. Shs 1380 B. Shs 140
C. Shs 980 D. Shs 1780
25. Find the value of the following:
 $6 - (3 + 1\frac{1}{3})$
- A. $1\frac{2}{3}$ B. $4\frac{1}{3}$ C. $2\frac{1}{3}$ D. $2\frac{2}{3}$
26. A shopkeeper deposited Shs 180,000 in a bank which paid interest at the rate of $12\frac{1}{2}\%$ p.a. Find the total amount in her account at the end of 18 months?
- A. Shs 33750 B. Shs 247500
C. Shs 67500 D. Shs 213750
27. A half of Nicole's age added to a quarter of her age is 12 years. What was her age 3 years ago?
- A. 16 B. 19 C. 13 D. 9
28. Simplify the following inequality
 $22n - 28 < 14n + 28$
- A. $n < 0$ B. $n < 7$
C. $n > 7$ D. $n < 1\frac{5}{9}$

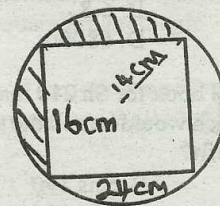
29. The diagram below shows a tank that Mwendwa made using metal sheets



The tank has a diameter of 4.2m and an opening at the top of diameter 0.7m. Find the volume of the metal sheet used in m^3 . (Take $\pi = \frac{22}{7}$)

A. 67.32m^3 B. 40.425m^3
C. 137.06m^3 D. 66.935m^3

30. Construct triangle RST in which $RS = 6\text{cm}$, $RT = 5\text{cm}$ and $ST = 8\text{cm}$. Draw a circle that touches lines RS, RT and ST. What is twice the radius of the circle?
- A. 1.6cm B. 3.2cm
C. 3.9cm D. 7.8cm
31. Class 7 Maroon has 64 pupils after the number of pupils was increased by $14\frac{2}{3}\%$. How many pupils were there before the increase?
- A. 8 B. 56 C. 49 D. 7
32. A milk processing factory has 32m^3 of milk. The milk was packed into 5 decilitre packets. How many packets were packed?
- A. 64000 B. 64 C. 6400 D. 160
33. A trader sold an item at Sh 300 and made a loss of 25%. How much had the item cost?
- A. Shs 225 B. Shs 375
C. Shs 400 D. Shs 240
34. The diagram below shows a rectangle drawn inside a circle.



Find the area of the shaded part?

- A. 116cm^2 B. 192cm^2
C. 232cm^2 D. 308cm^2
35. A car consumes 14 litres of petrol to travel 128km. How many litres will it use to travel 512km?
- A. 28 litres B. 3.5 litres
C. 4 litres D. 56 litres
36. A car travelling at 140km/hr takes 6 hours to finish a journey. At what speed must it travel to finish the same journey in 4 hours?
- A. 140km/h B. 210km/h
C. $93\frac{1}{3}\text{km/h}$ D. 840km/h
37. A rectangle ranch measures 2.5km by 1.6km. Using the scale 1cm represents 200 metres, find the area of the rectangle representing the ranch on the map.
- A. 100cm^2 B. 4km^2
C. 100m^2 D. 10000cm^2

38. Find the product of mean and the mode of the following numbers.

6, 5, 7, 6, 5, 9, 8, 3, 5

- A. 5
B. 54
C. 30
D. 49

39. 35 men can construct a brick house in 16 days. How many less days will 40 men take to construct the same house?

- A. 14
B. 16
C. 2
D. 5

40. Find the next number in the series.

2, 7, 15, 26, _____

- A. 40
B. 37
C. 30
D. 35

41. What is the value of:

$$\frac{6.39 - 8.12 + 3.25}{0.4 \times 0.02}$$

- A. 1.9
B. 19
C. 0.19
D. 190

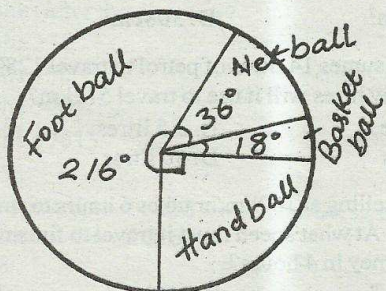
42. A wholesaler had 3.4 tonnes of sugar. He packed the sugar $\frac{1}{2}$ kg packets. How many packets did he pack altogether?

- A. 6800
B. 6.8
C. 680
D. 68000

43. A bookseller sold a book for Sh 210 making a 5% profit. For how much would he sell the same book to make a 10% profit?

- A. Shs 200
B. Shs 190
C. Shs 220
D. Shs 180

44. The pie chart below shows the types of games played by different pupils in a school.



If 60 pupils played handball, how many more pupils played football than netball?

- A. 120
B. 144
C. 24
D. 240

45. A rectangular notice board measures 1.5m by 2.5m. How many pieces of paper measuring 0.2m by 0.25m can be pinned on the notice board?

- A. 75
B. 71
C. 7
D. 70

46. Find the largest number that can divide 36, 63 and 108 without any remainder?

- A. 756
B. 181
C. 9
D. 3

47. Diana bought the following items from a shop:

3.5kg of sugar @ Shs 98

1.75kg cooking fat @ Sh 148

2 loaves of bread for Sh 68

2 bars of soap @ Sh 69

If she paid using two five hundred shilling notes, how much balance did she get?

- A. Shs 383
B. Shs 617
C. Shs 808
D. Shs 192

48. A family consumes 15dl of milk daily. The cost of one litre of milk is Shs 24, how much did they spend on milk in the month of February 2009?

- A. Shs 1008
B. Shs 1044
C. Shs 1080
D. Shs 10080

49. The ratio of boys to girls in a school is 3:2. If there are 600 boys, how many girls are in the school?

- A. 1000
B. 400
C. 100
D. 200

50. The average of 3 numbers is 152 and the fourth number is 144. What is the average of the four numbers?

- A. 456
B. 600
C. 312
D. 150