★FOCUSSED EXAMINATIONS

STD. 8   TERM 3 - 2014

MATHEMATICS

READ THESE INSTRUCTIONS CAREFULLY

1   Use an ordinary pencil only.
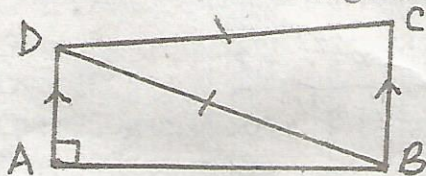2.   Make sure that you have written on the answer sheet.   **Time: 2 Hrs**

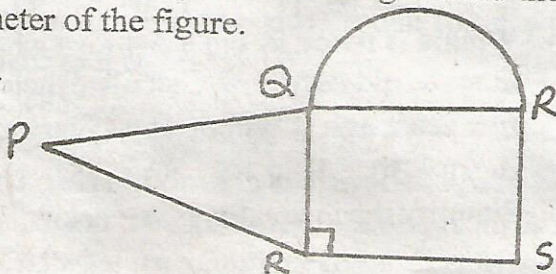   **I. YOUR NAME**   **II. YOUR INDEX NUMBER**   **III. NAME OF YOUR SCHOOL**

---

1. What is sixty six million, sixty six thousand and sixty and six thousandths in symbols?
   A. 66066060.06   B. 606 066 060.006
   C. 66 066 060.006   D. 66606 60.06

2. Work out the value of:

   $12^3/_5 + 2^3/_4 \div 1^1/_2$

   A. $16^7/_{20}$ B. $16^{17}/_{20}$ C. $17^7/_{20}$ D. $17^{17}/_{20}$

3. What is the square of the next number in the sequence below:

   19, 23, 29, 31, _____ ?
   A. 37   B. 1369   C. 1225   D. 35

4. Work out the value of x in the following equation.

   $2^2/_3 x + 8 - 1^1/_4 x = 42$

   A. 34   B. 24   C. 14   D. 4

5. In the figure below ABCD is a quadrilateral triangle in which angle DAB = 90° and angle DBA = 36° line DA is parallel to CB and DB = DC. What is the size of angle BCD?
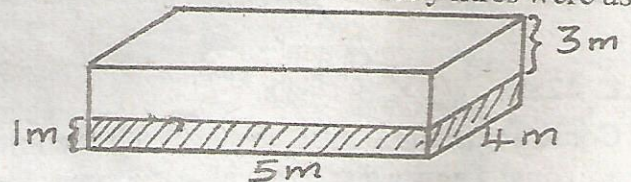

   A. 72   B. 36   C. 54   D. 60

6. The figure below is made up of sides 4.2 cm, a semi-circle and equilateral triangle. Find the perimeter of the figure.

   A. 25.2 cm B. 38.4 cm C. 30.0 cm D. 23.4 cm

7. The tank below shows level of water after it was used for a week. How many litres were used?

   A. 60,000 L   B. 20,000 L
   C. 20 L   D. 40,000 L

8. Mwalimu Opindi deposited Sh. 720000 in his saving account in a bank, which gave an interest of 8% per annum. After 15 months he withdrew all the moeny from the bank. How much did he withdraw?
   A. 793152 B. 792000 C. 72000 D. 864000

9. The table below shows SHIATSALA - SHIBOLI Msamaria fare for adults during December holidays.

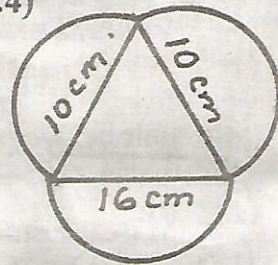 | Station | Shibuli | Ekero | Sabatia | Butere | Shiatsala |
   |---------|---------|-------|---------|--------|-----------|
   | Shibuli | - | 70 | 200 | 250 | 350 |
   | Ekero | 70 | - | 150 | 200 | 250 |
   | Sabatia | 200 | 150 | - | 100 | 200 |
   | Butere | 250 | 200 | 100 | - | 180 |
   | Shiatsala | 350 | 250 | 200 | 180 | - |

   The fare for children is a half that of adults. Three teachers and 15 pupils travelled from Shibuli to Butere. The following day they travelled to Shiatsala before returning to Shibuli. How much did they spend for the whole journey?
   A. 4,515   B. 7,090   C. 14,040   D. 8,190

10. Bwana Osimbo travelled a distance of 15 km which was represented on a map by a length of 2.4 cm. What was the scale used?
    A. 1:625000 B. 1:625 C. 1:62500 D. 1:6250

11. The mean of 9 numbers is 14. Eight of the numbers are 12, 15, 11, 16, 13, 20, 17 and 9. What is the median of the nine numbers?
    A. 14   B. 15   C. 13   D. 12

12. What is the value of $4.2 + 1.8 \times 1.2 - 7.2 \div 1.2$?

    A. 1.2   B. 0   C. 0.7   D. 0.36

13. What is the next number in the sequence below?

    $1\frac{1}{5}, \ 1\frac{3}{5}, \ 2, \ 2\frac{2}{5},$ _____

    A. 3   B. $2\frac{2}{5}$ C. $3\frac{3}{5}$ D. $3\frac{1}{25}$

14. What is $4\frac{4}{5}$ % expressed as a decimal?

    A. 0.048   B. 0.48   C. 48   D. 0.0048

15. Which one of the following expressions is the simplest form of:

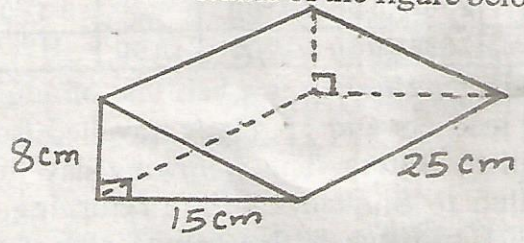$$\frac{8(xy + 2m) + 4(xy - 4m)}{6(3x + 2) - 18x}$$

    A. $\dfrac{3xy + 9m}{3}$ B. xy

    C. $12xy$ D. $\dfrac{xy}{12}$

16. Construct triangle ABC in which all the lines are equal. Draw a circle touching the three sides of the triangle given that line AB = 6 cm. Measure its diameter. What is three fifth of it?

    A. 3.5 cm   B. 2.1 cm   C. 1.8 cm   D. 3.1 cm

17. The figure below was designed by Asira an artist in class 8. (Take $\pi = 31.4$)

    What is the area of the design?

    A. 100.48 cm²   B. 78.5 cm²

    C. 226.78 cm²   D. 178.98 cm²

18. What is the volume of the figure below?

    A. 1000 cm³   B. 1120 cm³

    C. 3000 cm³   D. 1500 cm³

19. Sam sent Ochuonyo to buy the following items from the neighbouring kiosk.

    5 rolls of toilet paper @ Sh. 19

    $1\frac{1}{4}$ kg of sugar @ Sh. 64 per kg

    3 - 2kg packets of flour @ Sh. 54

    3 packets of milk @ Sh. 25.

    What balance did he receive if he paid for the items using a Sh. 1000 note?

    A. Sh. 668   B. Sh. 588   C. Sh. 669   D. Sh. 412

20. The table below shows the amount of commission payable at the post office to get money order.

Value of Orders		Commission	
		Sh.	Cts.
Not exceeding Sh. 100		2	50
Sh. 101 - 200		4	50
Sh. 201 - 400		8	00
Sh. 401 - 600		15	00
Sh. 601 - 800		20	00
Sh. 801 - 1000		22	50
Sh. 1001 - 1500		25	00
Sh. 1501 - 2000		30	00

    Kalula wants to send Sh. 1850 as pocket money for his daughter Natasha. What value of money order would he buy so as to pay the least commission at the post office.

    A. Sh. 30   B. Sh. 1500

    C. Sh. 2000   D. Sh. 25

21. The temperature of a solid was 35°C below the normal human body temperature. The solid was heated until its temperature was 38°C. What was the temperature change?

    A. 31°C   B. 2°C   C. 4°C   D. 35°C

22. The ratio of turkeys to chicken in Otabile's farm was $1\frac{2}{9}$. He decided to reduce the number of turkeys by four. Calculate the number of turkeys he has if he had 40 birds initially.

    A. 18   B. 14   C. 22   D. 24

23. Work out the value of:

$$\frac{1\frac{1}{5} \times 1\frac{2}{3} + 3}{1\frac{2}{5} + \frac{1}{10}}$$

    A. $3\frac{11}{15}$ B. $3\frac{1}{3}$ C. $8\frac{2}{5}$ D. $7\frac{1}{2}$

24. Convert the following fraction to decimal correct to a whole number. $\frac{3}{27}$

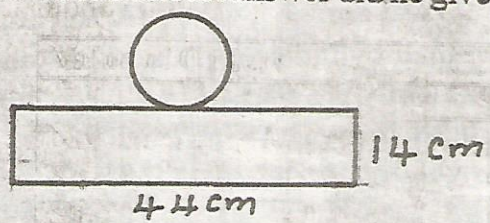   A. 1   B. 11   C. 0   D. 0.1

25. Winnie is twice as old a Ashioya who is three times as old as Mercy. Calculate their total age five years ago if Winnie is y - years old now.

    A. $9y + 30$ B. $y + 5$ C. $y - 5$ D. $9y - 30$

26. Simplify the inequality given below.

    $\frac{1}{2}x + 1/4 > \dfrac{x + 2}{4}$

A. $x > 1$ B. $x < 1$

C. $x < 3$ D. $x + 3$

27. Amakobe was asked by his Math teacher to work out the surface area of the figure given below. Which correct answer did he give?

14 cm

44 cm

A. 918 cm²   B. 616 cm²

C. 176 cm²   D. 770 cm²

28. Nandayi buys half a litre of milk every day. How many centilitres of milk did she buy in the month of February 2013?

A. 1400 cl   B. 5600 cl

C. 2800 cl   D. 11200 cl

29. Anyona is employed as a sales lady on a basic salary Sh. 12000. She is also entitled to a commission of $1\frac{1}{2}$ % on the sales she makes upto Sh. 70 000. In addition, she is also given an extra commission of 5% on the sales above Sh. 70 000. During the month of May 2013 she sold 300 crates of eggs at Sh. 7 per egg. How much did she earn that month?

A. Sh. 12945   B. 945/=

C. Sh. 1880   D. Sh. 12 000

30. The table below shows the Inland Postal Charges for letters.

Item	Mass	Charges (Sh.)
	Up to 20g	20.00
	Over 20g up to 50g	25.00
	Over 50g up to 100g	30.00
	Over 100g up to 225g	40.00
	Over 250g up to 500g	80.00
	Over 500g up to 1kg	150.00
	Over 1kg up to 2kg	20.00

Shikanda sent two letters each weighing 170g. Sophiah sent three letters weighing 48g, 92g and 800g respectively. How much more did Sophiah pay than Shikanda?

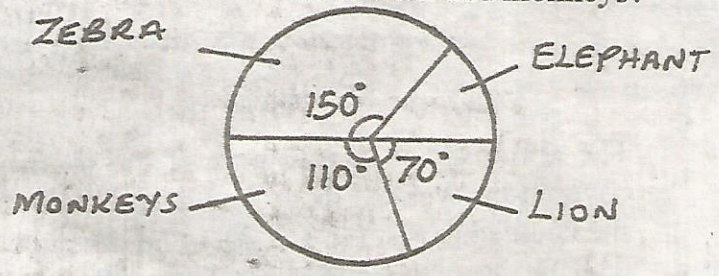A. Sh. 285   B. Sh. 80

C. Sh. 205   D. Sh. 125

31. When Bwana Mkhwana cycles at 40 km/hr he takes 30 minutes to reach school from his home. At what speed must he cycle so as to take 20 minutes from home to school in m/s?

A. $11\frac{2}{18}$ m/s   B. $16\frac{12}{18}$ m/s

C. 60 km/hr   D. 15 m/s

32. A tap A takes 9 minutes to fill the tank while tap B takes 18 minutes to fill the same tank. The two taps are opened at the same time for 72 minutes. How many tanks of the same size will be filled?

A. 4   B. 8   C. 12   D. 12

33. The pie chart shows the number of animals in a park. If there are 10 elephants in the park, what is the total number of lions and monkeys?

ZEBRA   ELEPHANT

150°

110° 70°

MONKEYS   LION

A. 60   B. 50   C. 100   D. 180

34. What is the square of the following number $5\frac{1}{16}$?

A. $\frac{656}{256}$ B. $2\frac{1}{4}$

C. $\frac{9}{4}$ D. $25\frac{161}{256}$
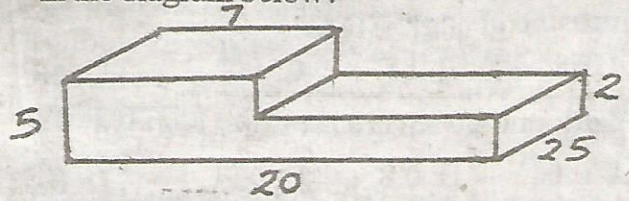
35. What is the place value of digit 8 in the product of 1.43 and 0.02?

A. Thousandths   B. Tenths

C. Hundredths   D. Thousands

36. Were made 3/5 of a journey by bus, 3/4 of the remainder by train and walked the rest of the journey. The distance he walked was 3 km. How long was the whole journey?

A. 6 km   B. 30 km   C. 60 km   D. 50 km

37. What is the volume of a wooden block shown in the diagram below?
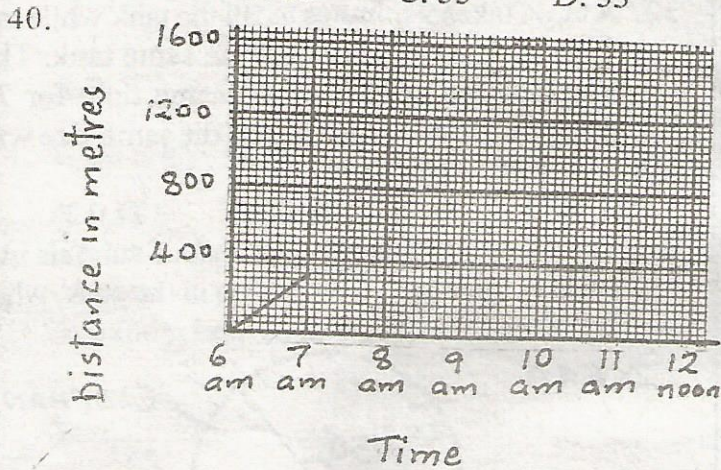

7

5   2

20   25

A. 1000   B. 3050   C. 700   D. 6100

38. Mercy borrowed a loan of 12600 shillings and repaid it after 2 months. If she was charged compound interest at the rate of 10% per month, how much interest did she pay altogether?
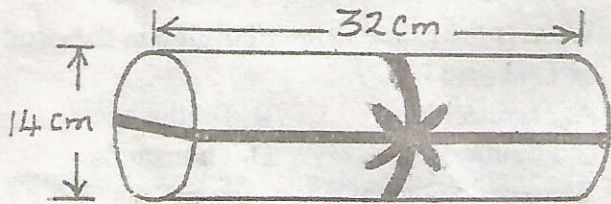
A. 15246   B. 2646   C. 1260   D. 13860

39. Omondi's mean score was 65 in two Mathematics tests and 45 in three English tests. What was his mean score for the five tests?

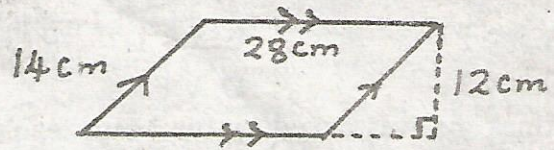   A. 110   B. 22   C. 55   D. 53

40.

The above graph shows part of the journey covered by Wetindi from Butere to Kitale. If she decided to rest for one hour and continued with the rest of the journey for 3 hours at a speed of 0.6 km/h. How far is Kitale from Butere?
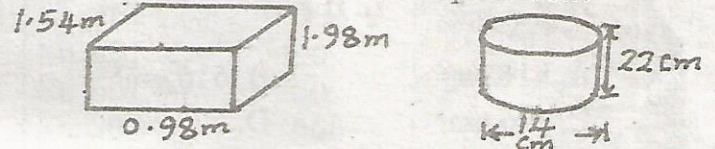
   A. 2.1 km   B. 1.8 km   C. 1.4 km   D. 3.8 km

41. The diagram below represents a cylindrical gift given to Opati as the best pupil in Mathematics. It was tied using a ribbon as shown below. What was the total length of the ribbon used if the knot was 10 cm long?

   A. 136 cm   B. 108 cm
   C. 146 cm   D. 104 cm

42. Construct a quadrilateral ABCD where AB = 8 cm, BC = 4 cm , AD = 6 cm <ABC = 120° and BAD = 100°. What is the measure of angle CDA?

   A. 68°   B. 88°   C. 90°   D. 58°

43. Work out the square root of $\sqrt{0.0016}$

   A. 0.04   B. 0.8   C. 0.2   D. 0.08

44. Which of the following measurements represents the measurement of a right angled triangle?

   A. 0.7, 1.4, 4.8   B. 1.4, 0.48, 5.0
   C. 1.4, 4.8, 5.0   D. 1.4, 4.8, 0.5

45. What is half the area of the following parallelogram?

   A. 168 cm²   B. 392 cm²
   C. 336 cm2   D. 166 cm²

46. Small cylinder of diameter 14 cm and height 22 cm were parked in a large box measuring 0.98 m by 1.54 m by 1.98 m. How many cylindrical containers filled up the box?
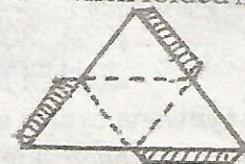

   A.   B.   C.   D.

47. The marked price of a sofa-set is Sh. 18000. Edu bought it on hire purchase terms by paying 120% of the marked price. He paid a deposit of Sh. 6000 followed by equal monthly instalments each of Sh. 1560. For how long did he complete the payment?

   A. Sh. 21600   B. 10 months
   C. 1 month   D. 10 years

48. The following shows Merimela's fare tables. Children pay half the fare. Wetindi and her husband travelled with their two children from town A to F via tons D and E. How much did they pay if they left one of the child at town F?

A					
50	B				
80	30	C			
120	90	60	D		
200	140	110	50	E	
290	180	150	90	40	F

   A. Sh. 635 B. Sh. 695 C. Sh. 870 D. Sh. 610

49. Calculate the area of the shaded region in the following.

   A. 77 cm²   B. 154 cm²
   C. 308 cm²   D. 616 cm²

50. The net below when folded makes a solid called

   A. rectangular pyramid   B. triangular prisms
   C. triangular pyramids   D. triangular prism