CLASS 8 MID TERM 2 2020

MATHEMATICS

1. Which of the following numbers is fifty five million, fifty thousand five hundred and five and fifty five thousandths?
   A. 55 050 505.055   B. 55 500 505.55
   C. 55 050 505.55   D. 55 050 055.055

2. What is the total value of digit 3 in the number 9 397 658 ?
   A. 3   B. 300
   C. 300 000   D. 3 000   ?

3. What is the value of: $\dfrac{\frac{1}{5} \times 1\frac{2}{3} + 3}{1\frac{2}{5} + \frac{1}{10}}$

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

4. What is the value of:
   (47 685 ÷ 5 + 1 345 - 886) x 3 ?
   A. 29 988   B. 43 019
   C. 8 886   D. 64 672

5. A circular plastic container with an internal diameter of 21cm contains 3.465 litres of water. What is the depth of the water in the container?? (Take $\pi = \frac{22}{7}$)
   A. 2.5cm   B. 1cm
   C. 100cm   D. 10cm

6. In the figure below **AE** is parallel to **BD**, **CD** is perpendicular to **AC**, angle **CDB** = 34^0 and angle **BEA**= 46^0.
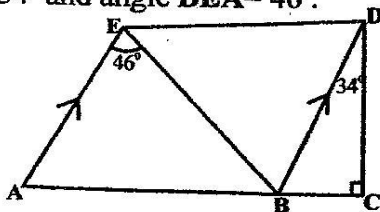
   What is the size of **ABE**?
   A. 34^0 B. 46^0
   C. 80^0 D. 78^0

7. What is the next number in the pattern below?
   15, 3, $\frac{3}{5}$, $\frac{3}{25}$ _____
   A. $\frac{3}{20}$ B. $\frac{3}{125}$
   C. $\frac{15}{125}$ D. $\frac{1}{15}$

8. Charles buys a new car every three years. James buys a new car every five years. They both bought new cars in 2016. In what year will both of them buy new cars again?
   A. 2031   B. 2021
   C. 2019   D. 2024

9. What is the value of $3\frac{1}{3}$ of $(\frac{1}{5} - \frac{1}{6}) \div \frac{5}{18}$?
   A. $\frac{2}{7}$ B. $2\frac{1}{2}$
   C. $27\frac{7}{9}$ D. 360

10. What is the product of the edges, faces and vertices of a closed cuboid?
    A. 26   B. 576
    C. 360   D. 20

11. A farmer had 105 hectares of land. He used $\frac{4}{7}$ of the land for grazing goats and cattle. If goats took up $\frac{2}{5}$ of the total grazing area , how many hectares of grazing were left for cattle?
    A. 36   B. 60
    C. 24   D. 18

12. Jane bought an article and sold it making a profit of 25%. If she sold it for for sh 120, how much did she buy the article?
    A. Sh 90   B. Sh 150
    C. Sh 96   D. Sh 96

13. What is the value of y in the equation $\frac{3}{5}y + 32 = 7y$?
    A. $25\frac{3}{5}$ B. $1\frac{2}{3}$
   C. 5   D. 35

   *__The figure below consists of a circle enclosed in a semicircle.__*
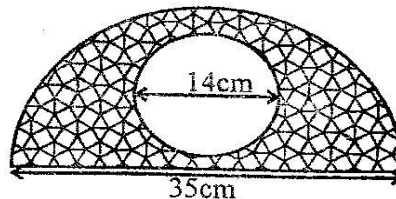
14. What is the area of the shaded region in the figure above?
    A. 481.25cm²   B. 635.25cm²
    C. 654.5cm²   D. 327.25cm²

15. What is the value of 25.234   5 correct to three decimal places ?

A. 5.047
B. 5.468
C. 5.046
D. 5.0468

16. An article can be bought on hire purchase by paying a deposit of sh 7 500 and eight equal monthly instalments of sh 3 500. The cash price of the article is sh 31 250. How much more would one pay on hire purchase than by paying cash?

A. Sh 28 000
B. Sh 35 500
C. Sh 66 750
D. Sh 4 250

*The figure below represents a vegetable garden*
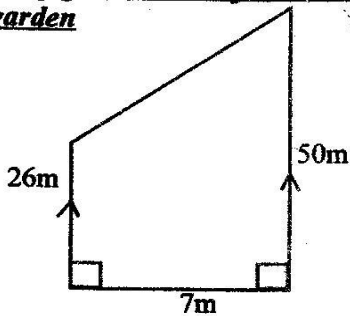
17. Calculate the area of the garden in m².

A. 286m²
B. 350m²
C. 175m²
D. 266m²

18. A rectangular field measures 750m by 250m. How many times must Kemboi run round the field to cover 10 km?

A. 2 ½
B. 10
C. 5
D. 20

19. The diagram below shows four straight lines, two of which are parallel to each other.
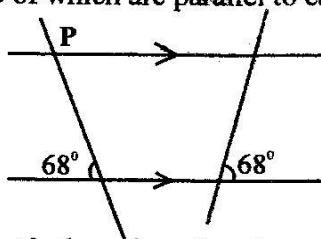
What is the value of angle marked **P**?

A. 64°
B. 116°
C. 112°
D. 68°

20. Draw a rectangle **ABCD** in which line **AB** = 10cm and line **BC** = 5cm. Draw a circle to pass through **A, B, C** and **D**. What is the radius of the circle ?

A. 5cm
B. 11.2cm
C. 5.6cm
D. 7.5 cm

21. A village has a total population of 280 people, of whom 72 are men. If there are three times as many children as women, how many children are there in the village?

A. 52
B. 208
C. 156
D. 67

22. The distance between two towns is 450km. What length would represent this distance if the scale of the map is 1:1 000 000?

A. 22.5cm
B. 4.5cm
C. 0.45cm
D. 45cm

23. In the figure below, **AB** is parallel to **EC**. Angle **ABE** is 25°, angle **EDB** = 60° and angle **EDC** = 60°.
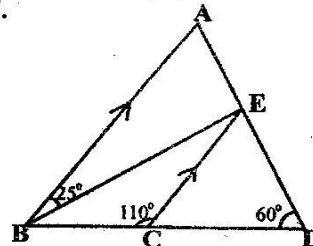
What is the size of angle **AEB**?

A. 60°
B. 85°
C. 105°
D. 130°

24. A sales girl is paid a basic monthly salary of sh 3 000 and a commission on sales above sh 60 000. In a certain month she received a total of sh 7 000 after selling goods worth sh 140 000. What was the percentage commission given ?

A. 8 ³/₄%
B. 6 ²/₃ %
C. 5%
D. 4%

25. What is the value of : $\frac{2p^2(q^2 - r^2)}{5p + q + r}$

if p = 5, q = 5, q = 8 and r = 7?

A. 7 ½
B. 18 ³/₄
C. 3 ¹/₄
D. 30

26. The diagram below represents a container which has kerosene up to a depth of 6cm.
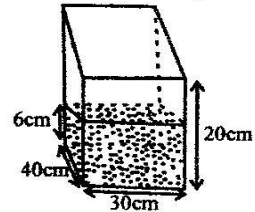
How many more litres of kerosene are needed to fill the container?.

A. 24*l*
B. 7.2*l*
C. 16.8*l*
D. 31.2*l*

27. During a birthday party sixty five crates of bread were delivered and some sodas. Each person was to take a soda and half a loaf. Each crate contained 20 leaves. All sodas got finished and seven crates of bread remained. How many sodas were the visitors given during the party?
A. 2 320
B . 232
C. 116
D. 58

28. A business man deposited sh 24 000 in a financial institution which offered a simple interest at the rate of 9% p.a. At the end of eight months he withdrew all of his money from the institution. How much did he withdraw?
A. Sh 1 440
B. Sh 25 440
C. Sh 41 280
D. Sh 2 400

29. A shopkeeper sold 19 shirts at a sh 960 each He used the money he received to buy 12 pairs of shoes at sh 490 each and six pairs of trousers at sh 1 900 each. How much was he left with ?
A. Sh 6 840
B. Sh 18 240
C. Sh 960
D. Sh 12 360

30. A matatu leaves Nairobi for Ngong town at 0742 hours and takes 25 minutes to reach Dagorette corner and a farther 7 minutes to reach to Karen, where it spends six minutes dropping some passengers and waiting for others. It then proceeds non-stop to Ngong town, arriving 13 minutes later. At what time did it reach its destination?
A. 0833h
B. 0830h
C. 0827h
D. 0820h

31. Draw line PQ = 7cm. On it mark point R 3cm from point P. Construct a perpendicular to line PQ to pass through R. Mark a point A on the perpendicular 4.5cm above R. Join A to P and A to Q? What is the size of angle RAP?
A. 34°
B. 42°
C. 86°
D. 56°

32. A patient was admitted in hospital from 28th December 2015 to 3rd March 2016. How many nights did the patient stay in the hospital?
A. 64 days
B. 65 days
C. 66 days
D. 67 days

33. A project requires 30 people to complete it in 24 days. How many more people should be employed to complete the project in 20 days?
A. 36
B. 20
C. 6
D. 4

34. A carpenter made a top of a table of perimeter 328cm. If the top has a width is 54cm, what is the area of the top?
A. 7 398cm²
B. 5 940cm²
C. 17 712 cm²
D. 14 796cm²

35. A rhombus has diagonals which measure 32cm and 24 cm respectively. What is it's perimeter?
A. 640cm
B. 320cm
C. 160cm
D. 80cm

36. Amina walked for 2 hours at 6km/h and then completed her journey by running at a speed of 9km/h in one hour. What was her average speed for the whole journey?
A. 5 km/h
B. 7 km/h
C. 7 ½ km/h
D. 8 km/h

37. Peterson bought a shirt with a marked price of sh 1 550. The shopkeeper gave him a 10% discount. How much balance did he receive from 2-one thousand shilling notes?
A. Sh 605
B. Sh 405
C. Sh 395
D. Sh 495

38. The diagram below shows a prism.
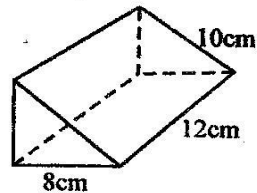
What is its total surface area in cm²?
A. 840cm²
B. 720cm²
C. 600cm²
D. 336cm²

39. The mean of six numbers is 8 ½. Five of these numbers are 5, 9, 6, 12 and 13. What is the median of six numbers?
A. 8 ½
B. 7 ½
C. 6
D. 9

40. What is the square root of 7 ¹/₉ ?
A. 2 ²/₃
B. 3 ⁵/₉
C. 50 ⁴⁶/₈₁
D. ⁴/₉

41. A dealer bought 12 tables at sh 1 105 each. He sold all of them at sh 2 400 more than the buying price. What was the selling price of each chair?
A. Sh 3 505
B. Sh 1 535
C. Sh 1 305
D. Sh 2 400

42. The county government of Narok spent sh 5 million as follows:
Roads sh 750 000
Education Sh 2 500 000
Health 1 250 000
The remainder is spent on public offices. If this expenditure is represented on a pie chart, what will be the angle that will represent the amount spent on public offices?
A. 64°   B. 30°
C. 45°   D. 36°

43. A sack holds 75kg of beans when full. How many would be needed to hold 1 500 tonnes of beans ?
A. 20   B. 200
C. 2 000   D. 20 000

44. The figure below represents a vegetable garden. The diameter ABCD of the larger semi-cicle is 56m. The diameter BC of the smaller semi-cicle is 28cm.

What is the perimeter of the vegetable garden (Take $\pi = \frac{22}{7}$)
A. 160m   B. 292m
C. 132m   D. 188m

45. The solid below is made up of two blocks.

What is the volume of the solids ?
A. 2 760cm³   B. 2 820cm³
C. 1 000cm³   D. 1 760cm³

46. Njagi spent sh x to buy meat, sh y to buy fruits and 8 shillings less on cooking oil than on fruits. If he spent sh 560 to buy the items, which of the following equation can be used to find the cost of buying the items?
A. x + y - 8 = sh 560
B. x + y + 8 = sh 560
C. x + 2y - 8 = sh 560
D. x + 2y + 8 = sh 560

47. The figure below represents the net of a solid.

If the net is folded to form a solid, how many edges and vertices will the solid have?
A. 5 edges, 6 vertices
B. 6 edges 9 vertices
C. 9 edges, 5 vertices
D. 9 edges, 6 vertices

48. The table below shows the distance in kilometres between some towns in Kenya.

Nairobi					
19	Juja				
28	18	Thika			
54	36	8	Kenol		
103	49	23	15	Makutano	
215	182	163	140	125	Karatina

A cyclist cycled from Karatina to Nairobi. He then cycled back making a stop at Thika. What distance did he cover?
A. 243km   B. 215km
C. 278 km   D. 406 km

49. A rectangular sheet of metal is 9cm wide while its diagonal measures 41cm. What is the length of the rectangular sheet of metal?
A. 40cm   B. 24cm
C. 350cm   D. 25cm

The graph below shows journeys of two motorists Ken and Mark. Ken travels from town P to Q while Mark from town Q to P.

50. How far apart were the two motorists at 10.30 am ?
A. 225km   B. 200km
C. 100km   D. 105km