

# OPENER STD 7 TERM 2 2020

## MATHEMATICS

NAME.....

Learner's Number

Gender Boy

Girl

County name ..... County code

Sub county name ..... Sub county code

School name ..... School code

The grid below is to be filled by the teacher after marking the learner's work

	Level 1	Level 2	Level 3	Level 4
Numbers 1-15				
Measurement 16-23				
Geometry 24-25				

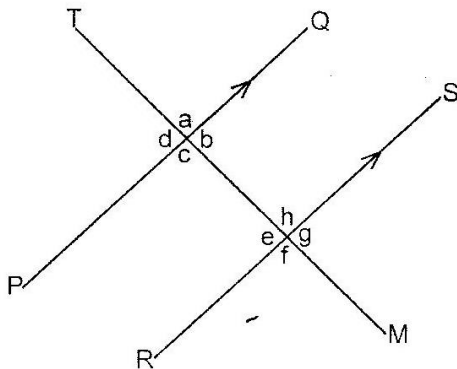
1. What is ninety million, nine thousand, nine hundred and nine in symbols?
  - A. 9 009 909
  - B. 90 090 909
  - C. 90 009 909
  - D. 90 009 990
  
2. What is 5 800 768 rounded off to the nearest thousands?
  - A. 6 000 000
  - B. 5 800 800
  - C. 5 800 000
  - D. 5 801 000
  
3. How many groups of hundreds are there in the total value of digit 7 in the number 1 578 426?
  - A. 700
  - B. 7 000
  - C. 70 000
  - D. 70
  
4. What is the difference of the LCM and GCD of the number 18, 24 and 36?
  - A. 78
  - B. 66
  - C. 432
  - D. 12
  
5. The area of a square plot of land is 1 296m<sup>2</sup>. If the plot is fenced with two strands of wire, calculate the length of the wire required?
  - A. 36m
  - B. 72m
  - C. 144m
  - D. 288m
  
6. What is the place value of digit 4 in the product of 386 and 29?
  - A. Ones.
  - B. Tens.
  - C. Hundreds.
  - D. Thousands.
  
7. A baby woke up at 6.30am after sleeping for 8hrs 45 minutes. At what time in am/pm did the baby sleep?
  - A. 9.45am
  - B. 8.45am
  - C. 9.45pm
  - D. 8.45pm
  
8. Which of the following properties is **TRUE** about Rhombus?
  - A. Diagonals bisect each other at 90°.
  - B. The sum of interior angle adds up to 180°.
  - C. Has one pair of parallel lines.
  - D. Diagonals are equal.
  
9. What is  $\sqrt{1\frac{13}{36}}$ ?
  - A.  $1\frac{1}{8}$
  - B.  $1\frac{1}{9}$
  - C.  $1\frac{1}{7}$
  - D.  $1\frac{1}{6}$
  
10. What is the value of  $22 \div 8$  correct to one decimal places?
  - A. 3.0
  - B. 2.8
  - C. 2.75
  - D. 2.6
  
11. What is the smallest number which must be added to 137 981 to make it divisible by 11?
  - A. 1
  - B. 2
  - C. 3
  - D. 4
  
12. A farmer sold 360 oranges in piles of twelve at sh. 7.50 per pile. How much money did he get the sales of oranges?
  - A. Sh. 225.00
  - B. Sh. 375.00
  - C. Sh. 2 700.00
  - D. Sh. 1 200.00
  
13. What is the product of the next two numbers in the pattern below  
2, 5, 11, 20, \_\_\_\_\_
  - A. 32
  - B. 47
  - C. 1 308
  - D. 1 504

14. Otieno packed  $32\frac{1}{2}$  kg of sugar into  $2\frac{1}{2}$  kg packets. How many packets did he get?
- A. 18  
B. 13  
C. 21  
D. 51

15. What is the value of:

$$\frac{1}{4} \text{ of } 8 \div \frac{1}{2} \times 6 \left( \frac{1}{2} + \frac{1}{3} \right) + \frac{1}{4} ?$$

- A.  $16\frac{3}{8}$                       B.  $24\frac{1}{2}$   
C.  $20\frac{1}{4}$                         D.  $12\frac{1}{3}$
16. In the figure below; line PQ is parallel to RS and TM is a transversal line.

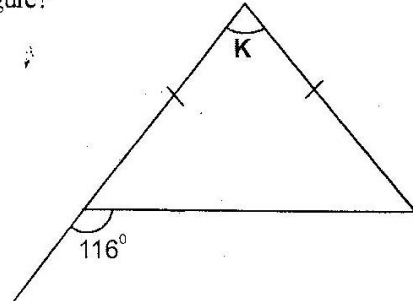


Which of the following statement is TRUE?

- A. Angle b and h (co-interior angles)  
B. Angle a and g (corresponding angles)  
C. Angle d and e (alternate angles)  
D. Angle c and h (vertically opposite angles)
17. Simplify  $2(3x + 2y) + 3(4x - 3y)$
- A.  $18x + 13y$   
B.  $18x - 3y$   
C.  $18x + 5y$   
D.  $18x - 5y$

18. What is the value of:  
 $6(3b + 4a) + 2(2a - b)$   
If  $a = 2$  and  $b = 3$  ?
- A. 88  
B. 104  
C. 122  
D. 118

19. Find the value of angle marked K in the figure?



- A.  $66^\circ$   
B.  $64^\circ$   
C.  $52^\circ$   
D.  $48^\circ$

20. Boniface bought  $b$  kg of sugar at sh. 80 per kg and  $(b + 6)$ kg of rice at sh. 50 per kg. What was the total cost of sugar and rice?
- A. Sh.  $(80b + 130)$   
B. Sh.  $(50b + 300)$   
C. Sh.  $(130b - 300)$   
D. Sh.  $(130b + 300)$

21. Which one of the following quadrilateral has only one pair of parallel line?
- A. Trapezium.  
B. Parallelogram.  
C. Rhombus.  
D. Rectangle.

22. A triangle has a base length of  $5\frac{1}{4}$  cm and a perpendicular height of  $2\frac{1}{2}$  cm. Calculate the area of the triangle?

- A.  $6\frac{1}{9}$  cm<sup>2</sup>                      B.  $6\frac{9}{16}$  cm<sup>2</sup>  
C.  $6\frac{3}{8}$  cm<sup>2</sup>                        D.  $6\frac{3}{4}$  cm<sup>2</sup>

23. A school bus ferried 765 pupils to an environmental awareness meeting. If it carried 72 pupils per trip, how many trip did it make?

- A. 10                      B. 12  
C. 9                        D. 11

24. What is the value of  $x$  in the equation

$$\frac{2}{3}x - 8 = 28$$

- A. 24  
B. 30  
C. 54  
D. 42

25. Simplify the inequality.

$$8y - 8 > 10 + 2y$$

- A.  $y > 3$                       B.  $y > \frac{1}{5}$   
C.  $y < 3$                       D.  $y < \frac{1}{5}$

26. Which of the following measurement will form a right angled triangle?

- A. 8cm, 24cm, 25cm  
B. 5cm, 12cm, 13cm  
C. 2cm, 3cm, 4cm  
D. 7cm, 15cm, 17cm

27. Construct triangle  $PQR$  in which  $PQ = 8\text{cm}$ ,  $QR$  is 6cm and angle  $PQR$  is a right angle. Draw a circle that passes through  $Q$ ,  $R$  and  $P$ . Measure the radius.

- A. 5.1cm  
B. 3.6cm  
C. 4.2cm  
D. 6.5cm

28. Ouma bought 25 plates. The first five plates she bought at sh.  $y$  each and the rest at sh.  $(y-5)$ . If the total cost was sh. 1,225, find the value of  $y$ ?

- A. Sh. 35  
B. Sh. 48  
C. Sh. 58  
D. Sh. 53

29. What is reciprocal of  $5\frac{1}{2}$

- A.  $\frac{11}{2}$                       B.  $\frac{2}{11}$   
C.  $2\frac{1}{5}$                       D.  $1\frac{2}{5}$

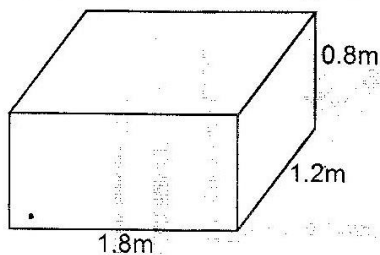
30. Convert  $\frac{13}{10000}$  into a decimal?

- A. 0.000013
- B. 0.00013
- C. 0.0013
- D. 0.013

31. Earnest earns sh. 18 000 per month. He spends 60% of his salary and saves the rest. How much does he save?

- A. Sh. 10 800
- B. Sh. 12 000
- C. Sh. 10 000
- D. Sh. 7 200

32. The diagram below is a rectangular tank.



What is the volume of the tank in cubic centimetres when half full?

- A. 1 728 000cm<sup>3</sup>
- B. 864 000cm<sup>3</sup>
- C. 172.8cm<sup>3</sup>
- D. 86.4cm<sup>3</sup>

33. How many 5 dl packet can be obtained from  $10\frac{1}{2}$  litres container?

- A. 11
- B. 10
- C. 21
- D. 20

34. What is the value of

T	kg	g
3	25	325
×		4

- A. 13T 21kg 300g
- B. 13T 102kg 300g
- C. 13T 210kg 300g
- D. 12T 102kg 300g

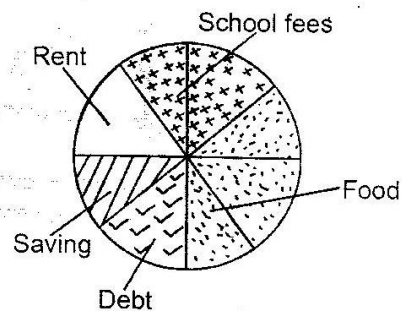
35. Stacy bought two hen at sh. 200 each. She later sold them at sh. 250 each. How much profit did he make?

- A. Sh. 400.00
- B. Sh. 300.00
- C. Sh. 500.00
- D. Sh. 100.00

36. The mean mass of 5 boys was 55kg. When their teacher added the mean became 58kg. What is the mass of the teacher?

- A. 5kg
- B. 73kg
- C. 50kg
- D. 64kg

37. The circle graph drawn below show how Patrick spends his salary of sh. 24 000.



How much more does he spend on food than on saving?

- A. Sh. 12 000
- B. Sh. 3 000
- C. Sh. 6 000
- D. Sh. 9 000

38. A trader bought 60kg of watermelon for sh. 2 000. Twenty kilograms of watermelon went bad during storage. He sold the remaining watermelon at sh. 40.00 per kg. What was the percentage loss incurred?

- A. 20%
- B. 30%
- C. 25%
- D. 16%

39. A path 18.6m long was drawn to the scale of 1cm represents 3m. What was its length on the scale drawing?

- A. 3.1cm
- B. 4.1cm
- C. 9.2cm
- D. 6.2cm

40. A class has 24 girls and 16 boys. During sports day  $\frac{1}{8}$  of the girls and  $\frac{1}{4}$  of the boys participated. How many pupils did not participate in sports?

- A. 33
- B. 21
- C. 7
- D. 16

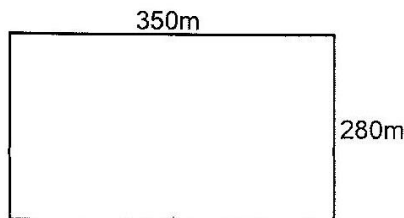
41. Multiply 12hrs 25min by 4.

- A. 49hrs 0mins
- B. 49hrs 40min
- C. 48hrs 100min
- D. 65hrs 40mins

42. An empty box weighs 5.6kg. When packed with tins of cooking fat, the box weighed 20.6kg. If one tin weighs 600g, how many tins are there in the box?

- A. 35
- B. 45
- C. 25
- D. 15

43. The diagram below is a rectangular plot of Mr. Maimuna.



What is the area of the plot in hectares?

- A. 9.8ha
- B. 98ha
- C. 980ha
- D. 9 800ha

44. Which one of the following is TRUE about a closed cuboid?

	Faces	Vertices	Edges
A.	5	12	8
B.	12	8	6
C.	8	6	12
D.	6	8	12

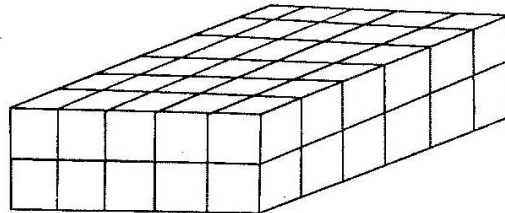
45. The table below shows the type of vehicles and the number of trips made by each vehicle on certain days.

	No. of trips by bodaboda	No. of trips by small cars	No. of trips by matatu
Friday	85	64	18
Saturday	74	72	12

Each bodaboda carried two passengers, each small car carried 4 passengers and each matatu carried 10 passengers respectively. How many passengers were carried on Saturday?

- A. 346
- B. 556
- C. 636
- D. 426

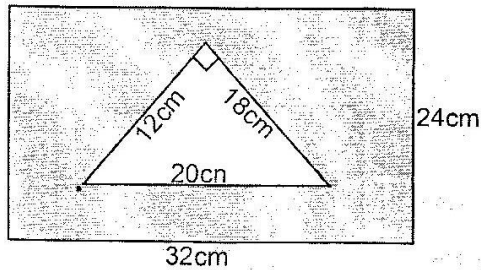
46. The diagram below is a stack of cubes.



How many cubes are they?

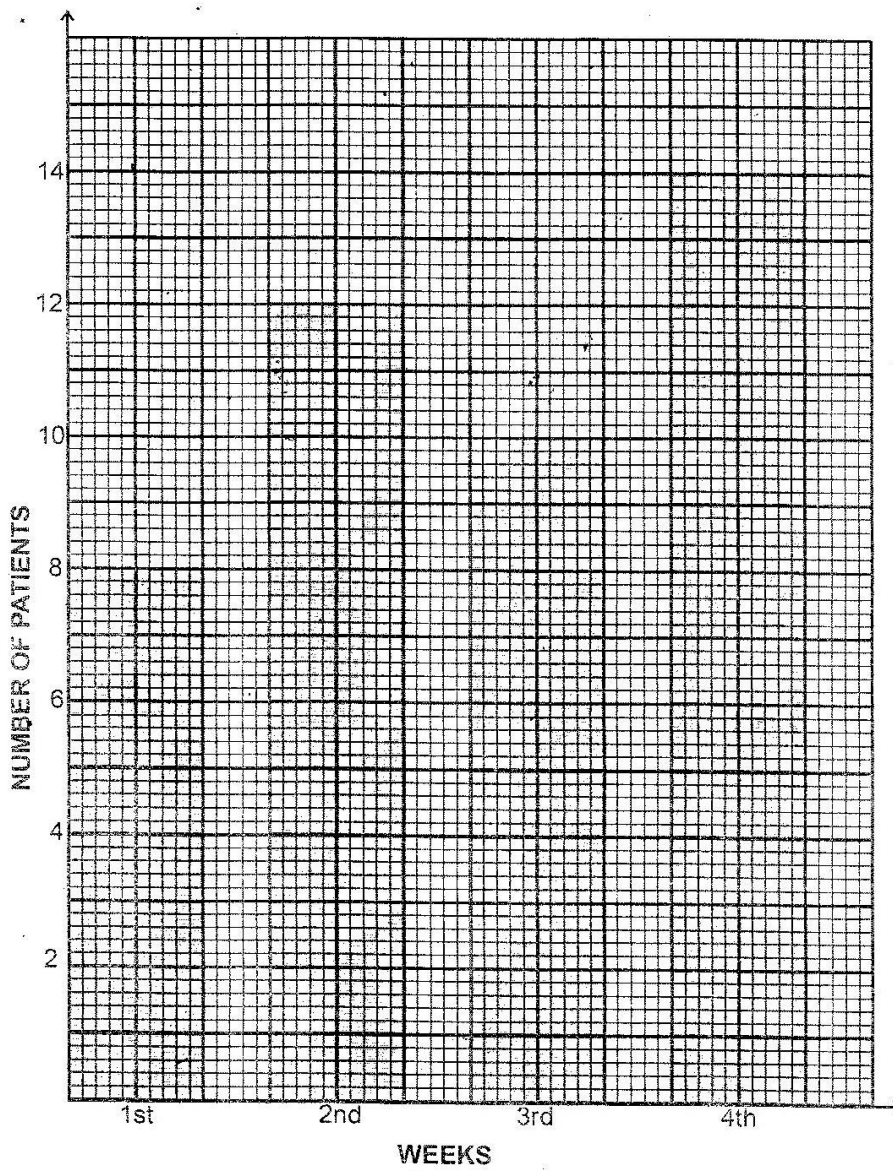
- A. 1.05pm
- B. 2.05pm
- C. 1205hrs
- D. 1305hrs

47. Kaari left her home at 10.00am for a journey of 216km. if she reached her destination at 1.00pm, what was her speed in m/s?
- A. 20m/s
  - B. 15m/s
  - C. 120m/s
  - D. 150m/s
48. What is the supplementary of angle  $60^\circ$ ?
- A.  $300^\circ$
  - B.  $30^\circ$
  - C.  $120^\circ$
  - D.  $150^\circ$
49. What is the area of the shaded-region in the figure below?



- A.  $768\text{cm}^2$
- B.  $660\text{cm}^2$
- C.  $588\text{cm}^2$
- D.  $648\text{cm}^2$

50. The bar graph below represents weekly TB related deaths in certain hospital in four weeks.



What was the total number of patients who died of TB in the four weeks?

- A. 36
- B. 40
- C. 44
- D. 42