1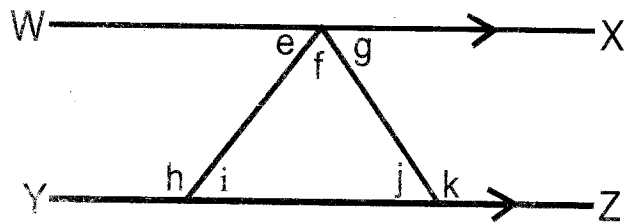. Which one of the following is seven million seven hundred and five thousand two hundred and three and five hundredths?

   A. 7705203.05
   B. 7705203.50
   C. 7075203.05
   D. 7705203.005

2. What is the value of 87.9965 rounded off to the nearest hundredths?

   A. 88
   B. 87.00
   C. 88.00
   D. 87.99

3. What is the value of:
   $24 \div 3 + 4 \times 5 - 8 \div 4 \times 10 + 1$?

   A. 6
   B. 10
   C. 12
   D. 9

4. By how many times is the value of digit 7 greater than the value of digit 5 in the number 867509?

   A. 140
   B. 14
   C. 6500
   D. 7500

5. What is the square root of $\sqrt{0.0625}$

   A. 0.25
   B. 2.5
   C. 0.05
   D. 0.5

6. Which one of the following expressions is **not** true?

   A. $0.75 > \frac{2}{3}$
   B. $0.0459 < 0.45$
   C. $80\% = \frac{4}{5}$
   D. $\frac{6}{18} > \frac{1}{2}$

7. What is half of the value of
   $\frac{1}{4}$ of $20 - 4 \times \frac{1}{8} \div \frac{1}{2}$?

   A. 4
   B. 8
   C. 2
   D. $3\frac{1}{2}$

8. In the figure below line WX and YZ are parallel lines.

   Which one of the following statements is **not** true about the diagram above?

   A. Angle $i + f + j = 180°$
   B. Angle $i + f = k$
   C. Angle $f = h - j$
   D. Angle $f = j$

9. What is the sum of the next two numbers in the pattern below?
   21, 23, 27, 33, _____, _____

   A. 41
   B. 51
   C. 90
   D. 92

10. What is the value of $\dfrac{q(pq^2 + pr)}{r}$?

    Where q = 2, p = $\frac{1}{2}$r+1 and r = 2q
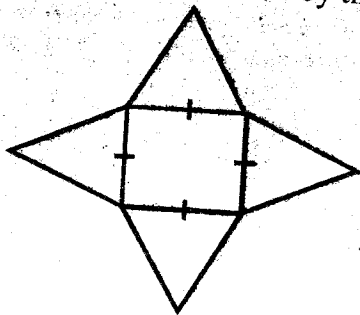
    A. 12
    B. 3
    C. 2
    D. 33

11. A trader bought 6 trays of eggs at sh 300 each. He paid sh 200 for transportation. During transportation 24 eggs broke. He sold the remaining eggs at sh 15 each. What percentage profit did he make if each tray had 30 eggs?

 A. 17%
 B. 15%
 C. $18^8/_9$%
 D. 20%

12. Trevis walked from home to town at an average speed of 8km/h and took 2 hours. He walked back home at an average speed of $6^2/_5$km/h. What was the total time taken for the whole journey?

 A. 2 hours 30 minutes
 B. 4 hours 30 minutes
 C. 3 hours 45 minutes
 D. 4 hours 15 minutes

13. What is the sum of the faces, vertices and edges of the solid formed by the net below?

 A. 21
 B. 17
 C. 26
 D. 18

14. 6 men were hired to repair a bridge in 8 hours. How many more hours would it take if 2 men did not report for work?

 A. 12
 B. 2
 C. 4
 D. 6

15. One bus of a capacity of 48 passengers and a 12 seater van were used to transport pupils to agricultural show. The two vehicles travelled together but the last trip was made by the van. How many pupils were transported by the bus if there were 312 pupils to be carried?

 A. 240
 B. 72
 C. 192
 D. 288

16. What is the largest number that can divide 30, 45 and 60 without a remainder?

 A. 3
 B. 15
 C. 180
 D. 360

17. Salim spent $^1/_6$ of his salary on food of the remainder on clothing and saved sh 2400. How much money did he have at the beginning?

 A. Sh 4320
 B. Sh 8640
 C. Sh 2880
 D. Sh 1440

18. An empty lorry weighs 8 tonnes. It weighs 12.8 tonnes when loaded with 60 bags of rice. What is the average weight of each bag of rice?

 A. 80kg
 B. 60kg
 C. 100kg
 D. 120kg

19. The table below shows the fare charges from town A to town F.

A					
40	B				
66	50	C			
96	46	20	D		
160	80	40	20	E	
400	200	130	50	30	F

Kasaya travelled from town A to town E via town C. How much money did she pay?

A. Sh 160
B. Sh 196
C. Sh 66
D. Sh 106

20. A sales person is paid a basic salary of sh 10000 plus a commission of 5% for the sales he make above sh 50000. In a certain month he sold goods worth sh 50000. How much did he earn that month?

A. Sh 2500
B. Sh 12500
C. Sh 10000
D. Sh 50000

21. Construct triangle ABC, where line AB=7.2cm, line BC = 5.8cm and line CA = 6.2cm. What is the size of angle ABC?

22. The mean mass of 5 pupils in a class is 52.2kg. When the mass of their teacher is included, the mean mass becomes 55kg. What is the mass of the teacher?

A. 67kg
B. 69kg
C. 57kg
D. 79kg

23. Ole Kinata had 180 heads of cattle. He sold 0.8 of the cattle to a neighbour and gave 0.5 of the the remainder to the needy. How many heads of cattle was he left with?

A. 18
B. 45
C. 36
D. 27

24. Stella got 80% in her English exam at the beginning of the term. She improved by 20% in the following exam. What did she score after improvement?

A. 100%
B. 96%
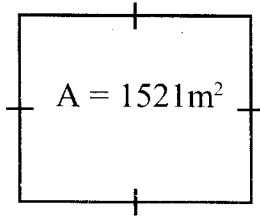C. 120%
D. 90%

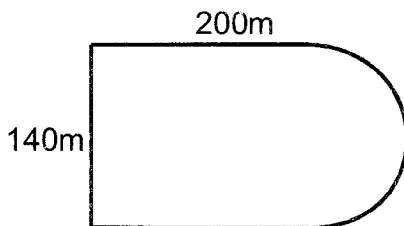A. 125°   B. 75°   C. 50°   D. 55°

25. The area of the square below is 1521m². What is its perimeter?

A = 1521m²

A. 31m
B. 39m
C. 156m
D. 124m

26. What is the possible value of **y** in the equation: $\dfrac{y + 4}{3} < \dfrac{2(3y - 3)}{8}$

A. 5
B. 1
C. 84
D. 3

27. Amina bought sugar, bread and salt. The price of sugar was twice that of bread, while the price of bread was sh 60 more than that of salt. The price of bread was sh x. Amina spent a total of sh 260 on the three items. Which one of the expression below can be used to get the price of the bread?

A. 3x - 60 = 260
B. 4x + 60 = 260
C. 5x + 60 = 260
D. 4x - 60 = 260

28. The diagram below shows a piece of land that was fenced. The fencing posts were placed 10m apart.

200m

140m

How many posts were used altogether?

A. 62
B. 63
C. 76
D. 77

29. Kwame deposited sh 120000 in a bank that paid simple interest at a rate of $8\frac{1}{2}\%$ p.a. After some time he withdrew all the money amounting to sh155700. For how long had the money taken in the bank?

A. 35 months
B. $3\frac{1}{2}$ months
C. $15\frac{1}{3}$ months
D. 3 years 6 months

30. Emily bought the following items from a shop;
2kg of sugar at sh 120
3 - 2kg packets of maize flour at sh 50 per kg
$1\frac{1}{2}$kg of onions at sh 80
2kg of rice for sh 180

How much balance did she get after paying with sh 1000 note?

A. Sh 840
B. Sh 20
C. Sh 160
D. Sh 310

31. A scale of 1:55000 was used on a map. What is the length of the railway line represented by 20cm on the map?

A. 11km
B. 1100km
C. 1.1km
D. 1100000km

32. Which one of the following is **not** a property found in all triangles?

A. The longest side is opposite the largest angle
B. The interior angles add upto 180°
C. The sum of the exterior angles add upto 360°
D. The largest interior angle is always 90°

33. A train reached Nairobi on Wednesday at 6:20am after travelling for 7 hours 45 minutes from Mombasa. On which day and time did it depart from Mombasa?

A. Wednesday 2235 hours
B. Tuesday 2235 hours
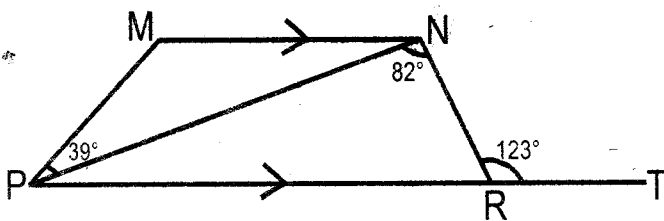C. Wednesday 0125 hours
D. Tuesday 1405 hours

34. 502 trees were planted on both sides of a road. The trees were spaced 10m apart. What was the length of the road in kilometres?

A. 5.01km
B. 2.51km
C. 2.505km
D. 2.5km

35. Torome bought 6 shirts for sh 2100. How much less would he pay for 4 shirts?

A. Sh 1400
B. Sh 350
C. Sh 700
D. Sh 1050

36. In the diagram below line MN is parallel to line PR. Angle PNR = 82°, angle SPN = 39° and angle NRT = 123°.
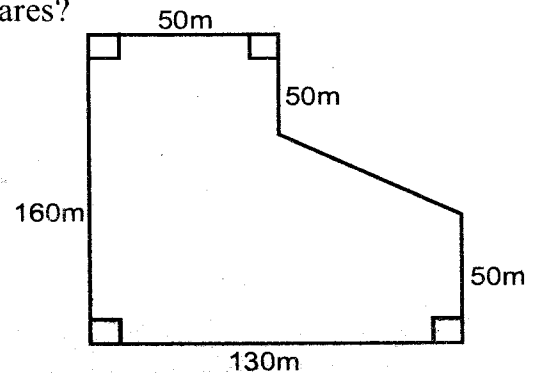

Find angle PMN.

A. 100°
B. 41°
C. 57°
D. 80°

37. A cyclindrical tank holds 3080L of water when full. It has a radius of 70cm. What is its height?

A. 200m
B. 2m
C. 20m
D. 0.2m

38. A baby slept at 7:30am and woke up at 10:30pm. For how long did the child sleep?

A. 3 hours
B. 9 hours
C. $3\frac{1}{2}$ hours
D. 15 hours

39. What is the area of the figure below in hectares?

A. 2.08
B. 1.68
C. 1.44
D. 14.4

40. Which set of measurement below will form a right angled triangle?

A. 0.7m, 24m, 2.5m
B. 1.0m, 2.4m, 2.6m
C. 0.5cm, 1.2cm, 1.7cm
D. 9cm, 16cm, 25cm

41. Simplify; $\dfrac{3(2x + 3y) - 3y}{6x}$

A. $\dfrac{6x + 6y}{6x}$

B. $\dfrac{x + y}{x}$

C. $\dfrac{x + y}{1}$

D. $x + 2y$

42. Terry paid sh 3600 for a machine after getting a discount of 20%. What was the marked price of the machine?

A. Sh. 4500
B. Sh. 2880
C. Sh. 3000
D. Sh. 3880

43. The hire purchase price of a radio needed a deposit of sh 2600 and 8 equal monthly instalments of sh 800. The marked price of the radio is 20% less than the hire purchase price. What is the marked price of the radio?
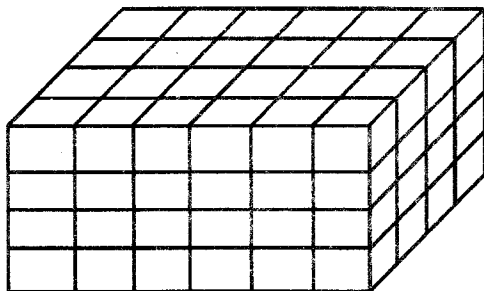
A. Sh. 9000
B. Sh. 7500
C. Sh. 6000
D. Sh. 7200

44. Stella is three times older than her son. If the son is y years old now. What was their sum ages 5 years ago?

A. 4y - 5
B. 2y + 2
C. 4y - 10
D. 2y - 7

45. Find the value of of x $\frac{3x + 5}{4} - \frac{x - 3}{3} = 6$

A. 1
B. 9
C. 3
D. 6

46. Cubes were to make the stack drawn below. It was painted with blue paint all round. How many cubes were painted 3 faces only?
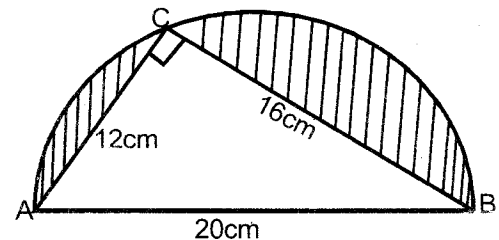

A. 8
B. 56
C. 48
D. 96

47. The tables below shows the charges for sending letters and post cards through the post office.

Type of article	Mass	Charges (sh)
Letters	Not over 20g	15
	Not over 60g	18
	Not over 150g	25
	Not over 250g	38
	Not over 500g	50
	Not over 1kg	85
	Not over 2kg	115
Post cards	Each	30

Mary sent two letters each weighing 450g and another one of $1\frac{1}{4}$kg. She also sent two post cards. How much did she pay for postage?

A. Sh 225
B. Sh 245
C. Sh 275
D. Sh 215

48. In the diagram below line AB is the diameter of the semi-circle. Calculate the area of the shaded part. (Take π = 3.14)
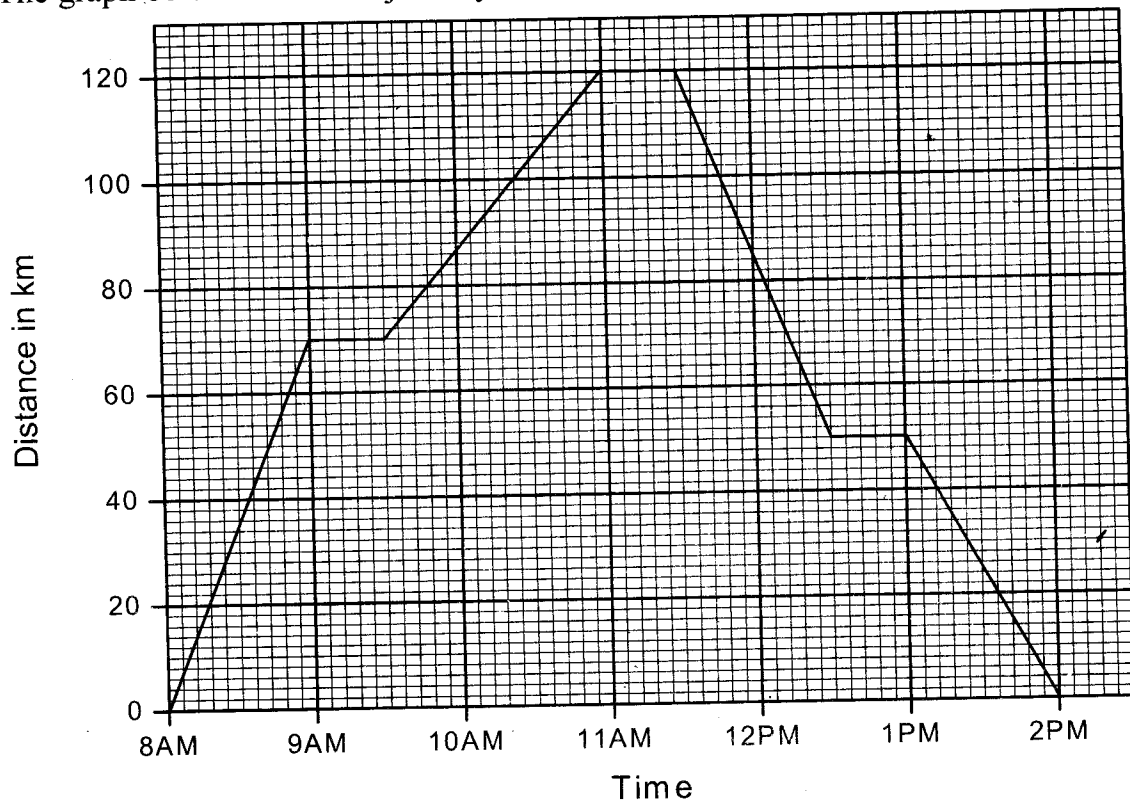

A. 157cm²
B. 96cm²
C. 253cm²
D. 61cm²

49. Tap A can fill a tank in 8 hours, tap B can fill the same tank in 6 hours. How long can the two take to fill the tank if they are connected at the same time?

A. $3\frac{3}{7}$ hours
B. 24 hours
C. 2 hours
D. 14 hours

50. The graph below shows the journey of a motorist from town R to town T and back.

How many kilometres did he cover between 9:30am and 1:00pm?

A. 120km
B. 50km
C. 80km
D. 70km

Mathematics standard 8