K.C.P.E PREDICTION ONE - *MATHEMATICS 2HRS*

1. What is thirty four million, four hundred and seven thousand and forty seven and fifty three thousandths written in symbols?
A. 34407047.053
B. 34047047.530
C. 304407470.0053
D. 34047407.503

2. How many groups of thousands are there in the value of digit 8 in the number 1874325?
A. 80
B. 800
C. 8000
D. 80000

3. What is the half of 396758 rounded off to the nearest ten thousand?
A. 40000
B. 200000
C. 198379
D. 400000

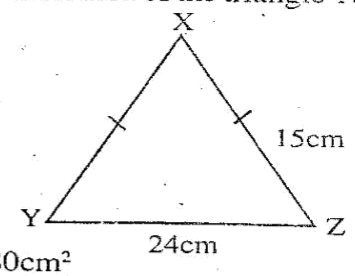
4. What is the difference between the LCM and HCF of 24, 40 and 72?
A. 8
B. 360
C. 352
D. 368

5. Work out the value of:
$28 \times 6 - 72 \div 8 + 40 \times 3$?
A. 39
B. 108
C. 40
D. 279

6. A water project meeting had ten members who contributed sh. 15 000 each. They found out that they still had a balance of sh. 2 250 for the project to kick off. What was the total amount contributed by each member for the project?
A. Sh. 15 225
B. Sh. 17 250
C. Sh. 152 250
D. Sh. 15 250

7. What is the sum of the 6th and 7th number in the sequence below?
2, 3, 5, 7, _____
A. 30
B. 11
C. 20
D. 24

8. What is the area of the triangle XYZ below?



A. 180cm²
B. 360cm²
C. 54cm²
D. 108cm²

9. Four equal square mats were laid down to form one big square. The big square was put on the floor. If each square mat was measuring $2^1/_4$m, what was the area covered by the big mat in square metre?
A. 2.25
B. 4.5
C. 16.25
D. 20.25

10. What is the value of x in the equation:
$X + {}^1/_4 (x + 8) = 10$
A. $1^3/_5$
B. $9^3/_5$
C. $6^2/_5$
D. $14^2/_5$

11. A cylindrical container is 15cm high, and has a volume of 9240cm³. What is the diameter of the tank in dm? ($\pi = {}^{22}/_7$)
A. 1.4
B. 14
C. 2.8
D. 28

12. Work out: $\sqrt{12.96} + (4.5)^2$
A. 56.25
B. 23.85
C. 23.65
D. 20.61

13. A school with 980 pupils gave each pupil a two-two deciliters packets of milk. How many litres of milk did the pupils drink?
A. 392
B. 196
C. 1960
D. 3920

14. A lorry has a mass of 4.5 tonnes when empty. When loaded with 90kg bags of maize its mass becomes 8.1 tonnes. How many bags were loaded?
A. 50
B. 90
C. 40
D. 140

15. Quinter bought the following items from a shop.
$5^1/_2$kg of rice @ sh. 150
2kg of sugar @ sh. 100
_____ kg of beans @ sh. 140
2 bars of soap for sh. 90
She paid with two one thousand shilling notes and received a balance of sh. 45. How many kilograms of rice did she buy?
A. $7^1/_2$
B. 3
C. 4
D. 6

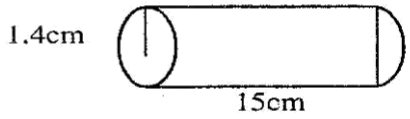
16. Wilber took $9^1/_2$ hours to travel from twon A to town B. If he arrived in town B at 0130h on Wednesday, when had he left town A?
A. 4.00a.m. Tuesday
B. 4.00p.m. Tuesday
C. 4.00a.m. Wednesday
D. 4.00p.m. Wednesday

17. An Mpesa Agent had the following in his shop:
Two-one thousand shilling notes
Two-five hundred shilling notes
Six-two hundred shilling notes
Twenty-twenty shillings coins and
Twenty-ten shillings coins
He changed the money into one hundred shilling notes. How many notes did he get altogether?
A. 42
B. 24
C. 38
D. 48

18. A business woman deposited shs 180 000 at a bank which paid compound interest at a rate of 10% per annum. She withdrew all the interest after two years. How much did she withdraw?
A. Shs 37 800
B. Shs 217 000
C. Shs 36 000
D. Shs 216 000

19. A salesgirl earns a salary of shs 40 000. She is also paid a 5% commission on goods sold above shs 80 000. In one month, she earned a total of shs 46 000. How much were the total sales?
A. Shs 120 000
B. Shs 40 000
C. Shs 200 000
D. Shs 920 000

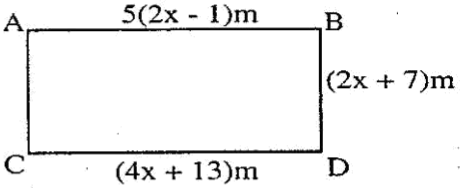
20. The pipe alongside was wrapped with a paper leaving out the ends. ($\pi = {}^{22}/_7$)



What was the area of the paper in cm^2?
A. 132
B. 1320
C. 66
D. 144.32

21. By selling a machine for sh. 120 000, a trader made a profit of 25%. What profit did he make?
A. Sh. 96 000
B. Sh. 30 000
C. Sh. 24 000
D. Sh. 20 000

22. The rectangular plot below is to be fenced using three strands of wire except one of the shorter sides.



What was the total length of wire used in metres?
A. 189m
B. 63m
C. 76m
D. 228m

23. Lukasha paid sh. 1930 for a shirt after being allowed a discount of $3^1/_2$%. What was the discount?
A. Sh. 2000
B. Sh. 3930
C. Sh. 2500
D. Sh. 70

Work out:
$\frac{8.0 + 4.85 \times 2.4 - 1.6}{4.0}$ to 3 decimal places

A. 2.97
B. 4.510
C. 4.51
D. 7.31

Three children, Tumaini, Mrembo and Blessings wanted to share some fruits. Tumaini got three times as many fruits as Mrembo. Blessings got 8 fruits less than Mrembo. There were five fruits remaining. If Tumaini got p fruits, how many fruits were there before sharing?
A. $^5/_3p + 3$
B. $^5/_3p - 3$
C. $^5/_3p - 13$
D. $7p - 8$

A rectangular water tank 0.16m long and 0.75m wide is $^1/_3$ full of water. If there are 6000 litres of water in the tank, what is the height of the tank?
A. 50m
B. 150m
C. 75m
D. 25m

The line below is one side of a triangle MNQ. On this line construct triangle MNQ with NQ = 5.5cm and angle MNQ = 70°. Drop a perpendicular from N to meet line MQ at O.

M N

What is the length of line ON in centimetres?
A. 3.2cm
B. 4.5cm
C. 3.5cm
D. 6.4cm

Rehema spent her day as follows:
8 hours in school,
1 hour watching television,
2 hours doing her homework,
4 hours playing,
1 hour helping parents and the rest sleeping.
If this information is represented on a pie chart how many degrees will represent the time spent sleeping?
A. 120°
B. 80°
C. 45°
D. 150°

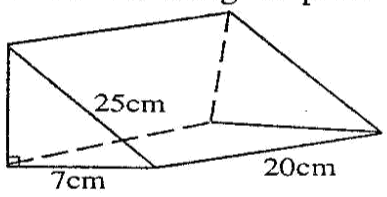
29. Brenda spent $^1/_4$ of her salary on rent, $^1/_2$ on food and half of the remainder on transport. The remaining was shared equally on entertainment and savings. If she saved Sh. 2000, how much more does she spend on food than rent?
A. Sh. 20 000
B. Sh. 16 000
C. sh. 8 000
D. Sh. 32 000

30.

Day of the week	MON	TUE	WED	THU	FRI	SAT	SUN
AMOUNT IN LITRES	120	142	____	133	124	137	140

The table above shows the amount of milk a farmer sold in a week. One litre of milk costs sh. 32. If the mean sales for the week was 135 litres, how much more money did he get from the sales of milk on Wednesday than on Tuesday?
A. Sh. 149
B. Sh. 224
C. Sh. 4544
D. Sh. 4768

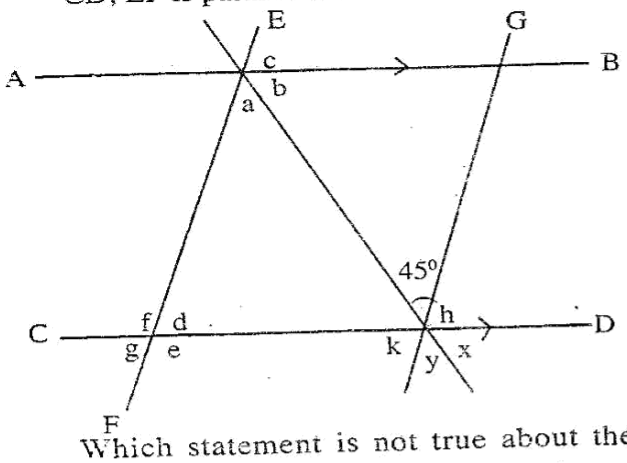
31. What is the volume of the triangular prism below?



A. $1288cm^3$
B. $3500cm^3$
C. $168cm^3$
D. $1680cm^3$

32. What is the median of the following numbers?
$^1/_2, ^1/_4, ^1/_8, ^1/_{16}, ^1/_{24}, ^1/_2$
A. $^3/_{16}$
B. $^1/_2$
C. $^3/_8$
D. $^1/_{16}$

33. In the figure below line AB is parallel to CD, EF is parallel to GH.



Which statement is not true about the figure?

A. Angles a + b + c = 180° = angles on a straight line
B. Angle d = angle c = Corresponding angles
C. Angles a, b and d are allied angles
D. Angles c = f alternate angles

34. What is the product of the faces, edges and vertices of an open square prism?

A. 576
B. 216
C. 270
D. 480

35. Construct parallelogram PMNQ in which PM = 4.5cm, MN = 6cm and angle PMN = 70°. Draw the diagonals. What is the measure of the longest diagonal?

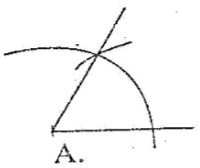
A. 6.1cm
B. 9cm
C. 8.2cm
D. 8.6cm

36. What is half of $\frac{1\frac{2}{3}+2}{\frac{1}{2}\times\frac{2}{3}}$?

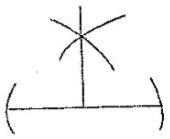
A. $5\frac{1}{2}$
B. 11
C. $2\frac{1}{2}$
D. $1\frac{2}{9}$

37. Which of the following shows how to construct 30° using a pair of a compass and ruler only?

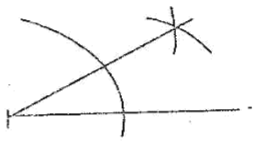
A.



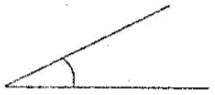
B.



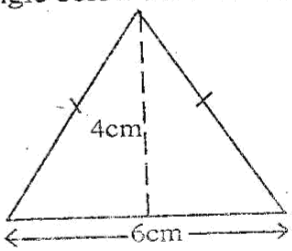
C.



D.



38. Using scale of 1:30 000, calculate the area of the triangle below in hectares.



A. 54
B. 135
C. 36
D. 108

39. Wicky bought television set for sh. 125 000 on hire purchase terms. He paid a deposit of sh. 35 000 and equal monthly instalment for 1 year. How much was each monthly instalment?

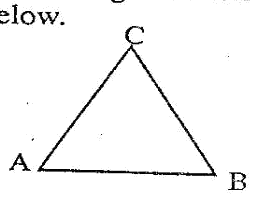
A. Sh. 90 000
B. Sh. 10 000
C. Sh. 7 500
S. Sh. 160 000

40. A watch loses five seconds every 1 hour. It was set correctly on Wednesday at 11.48a.m. What time would it show when the right time is 11.48a.m the following Wednesday?

A. 11.35a.m
B. 12.02p.m
C. 12.01a.m
D. 11.34a.m

41. The ratio of men to women in a meeting was 3:5. After the first session, twenty men left the meeting while twenty women joined the meeting. There were 480 people at the beginning of the meeting. What was the new ration of women to men?
A. 2 : 1
B. 1 : 2
C. 10 : 9
D. 9 : 16

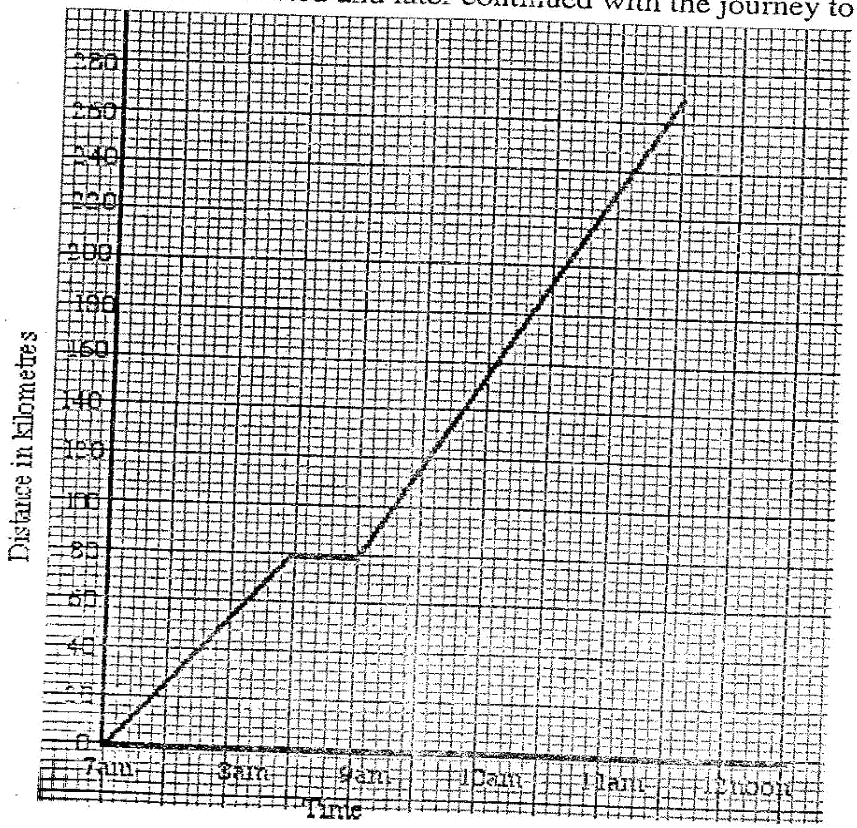
42. Four pupils were asked to construct a circle touching the edges of the triangle ABC drawn below.



Who gave the correct procedures?
A. Carlos bisected line AB and line CB. The two bisectors met at point Q. He used Q as the centre to draw the circle.
B. Amina bisected angle ABC and bisected line AC. The two bisectors met at O. She took O as the centre of the circle and drew the circle.
C. Dhillion bisected angle ABC and angle CAB. The two bisectors met at O. He dropped a perpendicular from O to meet line AB at P. He used OP as his radius to draw the circle.
D. Lucy bisected angle ACB and CBA to get the bisectors meeting at O. She used OC as the radius to draw the circle

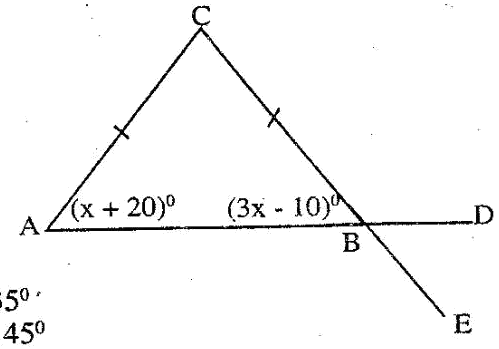
43. Water in a dam decreased by 5% daily during a dry season. On Friday, water level was at 1200cm. What was the level after two days?
A. 1190cm
B. 1040cm
C. 1080cm
D. 1083cm

44. The graph below shows John's journey from town X to Y. After travelling for the first ninety kilometres he rested and later continued with the journey to town Y.



What was the average sped of the journey from X to Y in km/h?
A. 40km/h
B. 60km/h
C. 66km/h
D. $67\frac{1}{2}$km/h

45. What is the value of angle CBD in degrees?



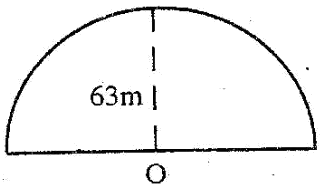
A. 35^0
B. 145^0
C. 110^0
D. 15^0

46. The temperature of a frozen ice was 10^0C below zero. It was heated for 10 minutes at a rate of 5^0C per minute and a further 5 minutes at a rate of 10^0C per minutes. What will be the new reading?
A. 40^0C
B. 110^0C
C. 90^0C
D. 100^0C

47. The number of football fans in a stadium were as follows: Three hundred men, one hundred women and twice as many children as women. What was the percentage of children in the stadium?
A. 40%
B. $33^1/_3\%$
C. $16^2/_3\%$
D. $66^2/_3\%$

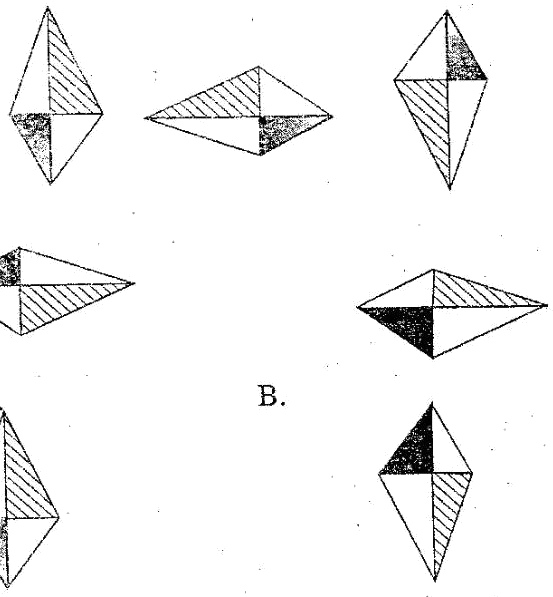
48. Eight workers can dig a piece of land in six days. How many more workers will be needed to complete the same work in four days?
A. 4
B. 6
C. 12
D.1 4

49. The figure below represents Peter's plot. O is the centre.



What is the circumference of the plot?
A. 324m
B. 261m
C. 198m
D. 162m

50. Which shape comes next?



A.

B.

C.

D.