

THE CURVE EVALUATION TEST

K.C.P.E TRIAL -2020

SILVER 002

-MATHEMATICS-

Time: 2 hours

READ THESE INSTRUCTIONS CAREFULLY

1. You have been given this question booklet and a separate answer sheet. The question booklet contains 50 questions.
2. Do any necessary rough work in this booklet.
3. When you have chosen your answer mark it on the **ANSWER SHEET**, not in the question paper.

HOW TO USE THE ANSWER SHEET.

4. Use an ordinary pencil only.
5. Make sure that you have written on the answer sheet

YOUR INDEX NUMBER

YOUR NAME

NAME OF YOUR SCHOOL

6. By drawing a **dark line** inside the correct numbered boxes mark your full Index Number (i.e. School Code Number and the Candidate's Number) in the grid near the top of the answer sheet.
7. Do not make any marks outside the boxes.
8. Keep your answer sheet as clean as possible and **DO NOT FOLD IT**.
9. For each of the questions 1-50 four answers are given. The answers are lettered A, B, C, D. In each case only **ONE** of the four answers is correct. Choose the correct answer.
10. On the answer sheet show the correct answer by drawing a **dark line** inside the box in which the letter you have chosen is written.

Example

In the Question Booklet:

12. Change three thousand hectometres into kilometres
A. 3
B. 300
C. 30
D. 0.3

The correct answer is **B. (300)**

On the Answer sheet:

12. [A] [~~B~~] [C] [D]

13. [A] [B] [C] [D]

14. [A] [B] [C] [D]

15. [A] [B] [C] [D]

In the set of boxes number 12, the box with letter **B** printed in it is marked.

1. Your dark line **MUST BE** within the box.
12. For each question **ONLY ONE** box is to be marked in each set of four boxes.

This question paper consists of 8 printed pages.

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TURN OVER

1. Which one of the following is four million three hundred and forty six thousand, six hundred and sixty five and forty nine thousandths in symbols?
 A. 40346665.049
 B. 4346665.049
 C. 4346065.049
 D. 436465.049
2. What is the product of the values of digits 5 and 4 in 52041?
 A. 50040
 B. 5000040
 C. 49960
 D. 2000000
3. What is the number 364.3406 rounded off to the nearest thousandths?
 A. 364.341
 B. 364.340
 C. 364.3407
 D. 364.400
4. What is the greatest common divisor of 36,60,84 and 96?
 A. 6
 B. 12
 C. 180
 D. 240
5. Simplify and give your answer to the nearest hundredths

$$\frac{16.1 \times 10.4}{1.12}$$

 A. 149.5
 B. 149.50
 C. 1.495
 D. 150
6. Three bells are set to ring at intervals of 12, 18 and 24 minutes respectively. If they rang together at 8.20am, what time will they ring together again?
 A. 7.08am
 B. 9.32pm
 C. 7.08pm
 D. 9.32am
7. What is the value of $7(9^2 - 6^2) + 36 \div 4 =$
 A. 540
 B. 51
 C. 324
 D. 2925
8. **Work out**

$$\frac{3(x+1)}{2} + \frac{2(x-2)}{2} = 6\frac{2}{3}$$

 A. 13
 B. $13\frac{1}{2}$
 C. $3\frac{4}{15}$
 D. $2\frac{13}{15}$
9. A van left town A for town B with 28 passengers. At town B, 5 passengers alighted and 7 more passengers boarded the bus. On reaching town C 9 more passengers alighted but two boarded the bus which then proceeded to town D. How many passengers were in the bus when it arrived at town D?
 A. 19
 B. 37
 C. 23
 D. 35
10. Kamau is three times as old as his son. The sum of their ages is 36 years. How old was his son five years ago?
 A. 4
 B. 9
 C. 27
 D. 14

Working space

11. Which statement among the following is correct?

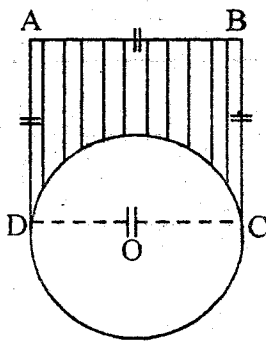
- A. 445 is greater than $\frac{1}{2}$ of 1000
- B. A right angle is bigger than an acute angle
- C. 1000cm is the same as 1km
- D. 100cm^2 is greater than 1m^2

12. $\frac{0.144 \times 4.5 \times 6.5}{26 \times 1.8 \times 3.0}$

- A. 30
- B. 0.03
- C. 3
- D. 0.3

13. In the figure below, ABCD is a square with an area of 196cm^2 . O is the center of the circle. Find the area of the shaded part.

$$\left(\pi = \frac{22}{7}\right)$$

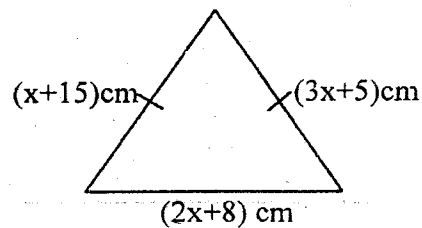


- A. 77cm^2
- B. 142cm^2
- C. 119cm^2
- D. 273cm^2

14. John used a ladder to climb up a wall. He placed the bottom of the ladder 5m away from the wall. The ladder touched the wall at a height of 12m. What was the length of the ladder?

- A. 17m
- B. 7m
- C. 19m
- D. 13m

15. Find the perimeter of the triangle below



- A. 58 cm
- B. 48cm
- C. 49cm
- D. 46cm

16. Caleb and John shared some money in the ratio 3:5. If John got sh 2400 more than Caleb. How much money did they have altogether before sharing?

- A. Sh 9600
- B. Sh 2400
- C. Sh 4800
- D. Sh 19200

Working space

17. Arrange the following numbers in descending order.

$$\frac{2}{3}, 0.5, \frac{2}{5}, 0.7, \frac{3}{7}$$

A. $\frac{2}{3}, 0.5, \frac{2}{5}, 0.7, \frac{3}{7}$

B. $\frac{2}{5}, \frac{3}{7}, 0.5, \frac{2}{5}, 0.7,$

C. $0.7, \frac{2}{3}, 0.5, \frac{3}{7}, \frac{2}{5}$

D. $0.5, \frac{2}{3}, \frac{2}{5}, \frac{3}{7}, 0.7,$

18. Oloo deposited sh. 20000 in a bank which paid a simple interest per annum. After 21 months he withdrew sh. 24200. At what rate did the money earn interest?

A. 13%

B. 15%

C. 12%

D. 10%

19. Mulwa sold a cow for sh. 26000, making a loss of 20%. For how much would he have sold it to make a 10% profit?

A. Sh. 30000

B. Sh. 35750

C. Sh. 32500

D. Sh. 28000

20. Mr Kim weighed 80kg, after sometime his mass increased to 90kg. What was the increase in his mass expressed as a percentage?

A. $12\frac{1}{2}\%$

B. 12%

C. 14%

D. 15%

21. The scale on a map is 1:20000. A rectangular piece of land measures 4cm by 5cm. what is the actual area of the plot in hectares?

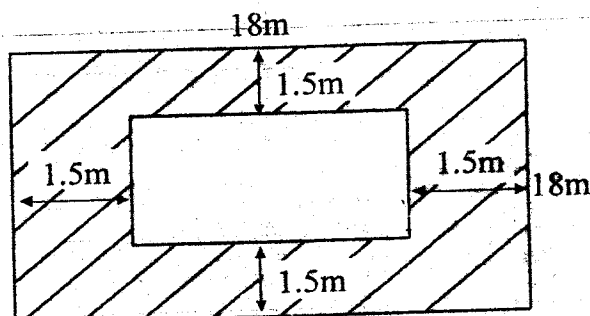
A. 8000 ha

B. 0.8 ha

C. 0.4 ha

D. 80 ha

22. A square piece of land measuring 18m was used by a farmer to plant onions and beans. A path measuring 1.5m all round was left inside the piece of land. The onions occupied $\frac{1}{10}$ of the planted piece of land. Calculate the area under beans in square meters.



A. 36m

B. 202.5m

C. 225m

D. 22.5m

23. In a meeting there were twice as many men as women. The number of children was half the number of adults. If there were 96 women in the meeting, how many more men than children were there?

A. 48

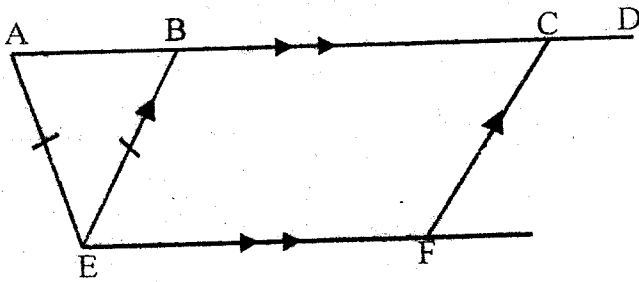
B. 45

C. 96

D. 135

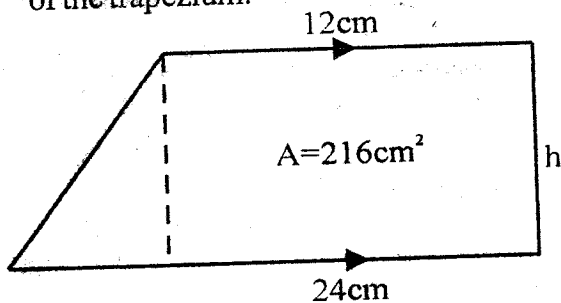
Working space

24. In the figure below, ABCD is a straight-line. AD is parallel to EF and BE. Angle ABE = 56° and $AE = BE$. Calculate the size of angle CBE.



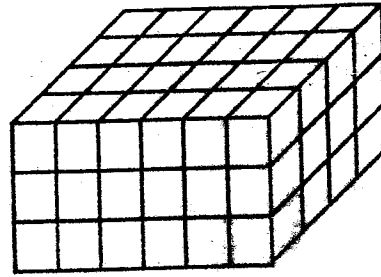
- A. 62° B. 124°
 C. 118° D. 108°
25. A cylindrical water tank has a capacity of 36000cm^3 of water. Calculate its capacity when $\frac{3}{4}$ full in litres.
 A. 9000
 B. 27
 C. 2700
 D. 9

26. The area of the trapezium below is 216cm^2 . The parallel lines are shown. Find the height of the trapezium.



- A. 12m
 B. 13m
 C. 14m
 D. 16m

27. The stack shown in the following figure was dipped in red paint.



- How many cubes were painted 3 faces each?
 A. 14 B. 16
 C. 8 D. 12

28. The mass of an empty bus is 5.4 tonnes. 42 passengers boarded the bus and their average mass was 64kg, excluding the driver. Find the mass of the loaded bus in tonnes if the driver's mass was 66kg.
 A. 6.04t
 B. 6.70t
 C. 8.154t
 D. 8.754t

29. Muasya was admitted at Matuu hospital on 22nd December 2019, she was discharged on 7th March the following year. How many nights did she spend in the hospital?
 A. 77 B. 76
 C. 75 D. 74

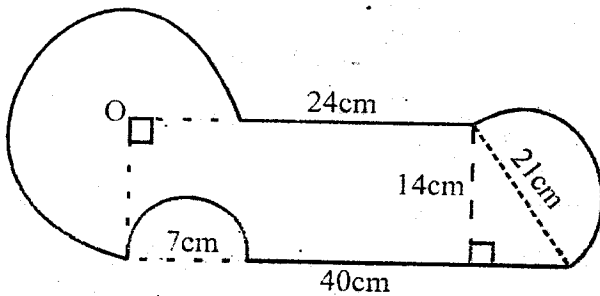
30. The table below shows the sales of shoe sizes in a shop.

Shoe size	Pairs sold
7	3
8	1
9	8
10	2
11	1
12	2

- What was the modal shoe size?
 A. 11 B. 9
 C. 10 D. 12

Working space

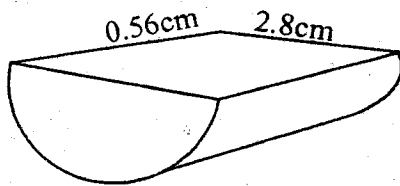
31. Find the distance around the figure shown below ($\pi = \frac{22}{7}$)



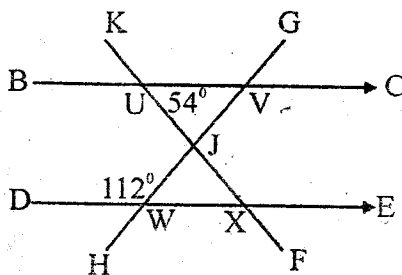
- A. 141cm
B. 101cm
C. 121cm
D. 174cm
32. Susàne bought the following items: from a shop
 2 bars of soap at 38.50 per bar
 2 tins of cooking fat at sh. 72 per tin
 $\frac{1}{2}$ kg margarine at sh. 105 per kg
 2 loaves of bread at sh. 40 each
 $2\frac{3}{4}$ kg of sugar at 120 per kg
 A packet of salt for sh. 15
 What balance was she given if she gave the shopkeeper four-two hundred shilling notes?
 A. Sh. 102
 B. Sh. 698
 C. Sh. 100.50
 D. Sh. 101.50
33. After paying a commission of 7% of the price of a bus to an agent, the owner was left with Sh. 2325000. What was the cost of the bus?
 A. Sh. 25000
 B. Sh. 2500000
 C. Sh. 3000000
 D. Sh. 25000000
34. The marked price of a refrigerator is sh. 42000. A 12% discount is given if it is bought in cash. The hire purchase price is 20% more than the cash price. Maureen bought it on hire purchase terms by paying a deposit of sh. 21352 and eight monthly instalments. How much was each instalment?
 A. Sh. 3631
 B. Sh. 2875
 C. Sh. 3696
 D. Sh. 2210
35. Kiplagat deposited sh. 500000 in a bank that paid a 12% p.a compound interest. At the beginning of the third year he withdrew sh. 160000, how much money did he have in his account at the end of that year?
 A. Sh. 5077200
 B. Sh. 467200
 C. Sh. 523264
 D. Sh. 56064
36. The temperature of ice rose from -29°C to 7°C between 11:58 am and 12:07pm. What was the rate of heating per minute?
 A. $4^{\circ}\text{C}/\text{min}$
 B. $36^{\circ}\text{C}/\text{min}$
 C. $7^{\circ}\text{C}/\text{min}$
 D. $10^{\circ}\text{C}/\text{min}$
37. What is the smallest number that can be subtracted from 49329 to make it divisible by 11?
 A. 9
 B. 5
 C. 3
 D. 6

Working space

38. Find the volume of the half cylindrical solid shown below. ($\pi = \frac{22}{7}$)



- A. 5.6 cm^3
 B. 8.624 cm^3
 C. 1.72 cm^3
 D. 8.66 cm^3
39. The marked price of a radio was sh.1200. Kazungu paid sh. 950 for the radio after being given a discount. What percentage discount was he given?
- A. 15%
 B. $20\frac{5}{8}\%$
 C. $26\frac{19}{19}\%$
 D. $20\frac{5}{6}\%$
40. In the figure below, line BC is parallel to line DE. Line KF and Line GH intersect at J. Angle DWJ = 112° and angle JUV = 54° . What is the size of the angle JWE?

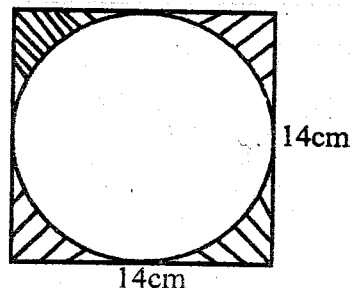


- A. 54°
 B. 126°
 C. 68°
 D. 45°

41. A farmer used his 30-ha land as follows:
 $\frac{1}{6}$ of the area on planting beans
 $\frac{1}{2}$ of the area for coffee
 $\frac{1}{2}$ of the remainder for planting maize and the rest was planted potatoes.

How much land was planted coffee and maize?

- A. 15 ha
 B. 10ha
 C. 5 ha
 D. 20 ha
42. Asha's table mat has a square design as shown below. Find the area of the shaded part. ($\pi = \frac{22}{7}$)



- A. 156 cm^2
 B. 196 cm^2
 C. 112 cm^2
 D. 84 cm^2
43. The number of lions in Serengeti park was 40000 in the year 2002. In the year 2003 the number decreased by 40%. In the year 2004 the number increased by 30%. How many lions were in the park in the year 2004?
- A. 31200
 B. 36200
 C. 38200
 D. 40200

Working space

44. In a certain village, the total number of women and men was 90850. The number of women and children was 60820. If the number of children was 22660, what was the number of men in the village?

- A. 75350
- B. 15500
- C. 38160
- D. 52690

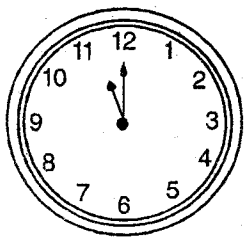
45. Jeremy's family consumes 18dl of milk every day. How much money did they spend in buying milk if 1.5 litres of milk cost sh.40, in the months of June and July last year?

- A. Sh 1098
- B. Sh 2928
- C. Sh 3290
- D. Sh 4216

46. A cylindrical container has an internal radius of 0.9m and a height of 1.1m. Find its capacity in litres. ($\pi = \frac{22}{7}$)

- A. 34.65L
- B. 2800.29L
- C. 3.465L
- D. 2.8L

47. Solomon slept at the time shown by the wall clock one evening.



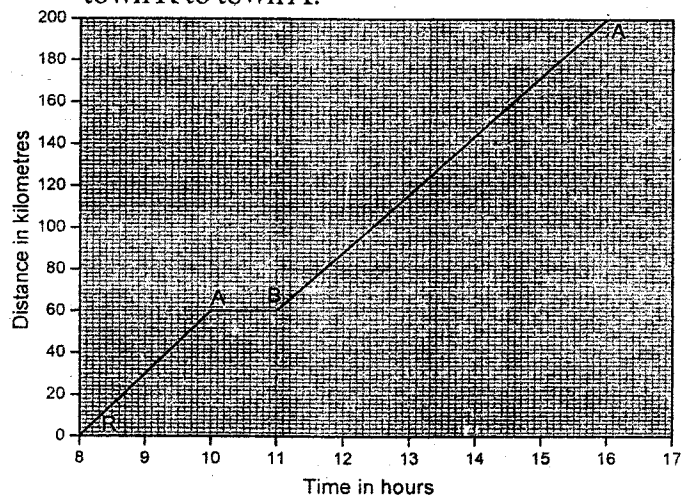
If he woke up $8\frac{1}{2}$ hours later. What time in 24 hour clock system did he wake up?

- A. 05.50 pm
- B. 07.10 am
- C. 0730 hours
- D. 07.30 am

48. A packet is in a form of a square based pyramid. Which of the following statements is true about the number of its faces, and vertices?

	Face	edges	vertices
A.	5	8	5
B.	4	6	4
C.	2	9	4
D.	6	8	12

49. The graph below shows the journey from town R to town A.



Calculate his average speed from points R to A.

- A. $25\frac{5}{7}$ km/h
- B. 22 km/h
- C. 920 km/h
- D. 6 km/h

50. Which figure among the following is an isosceles trapezium?

