

KCPE TRIAL EXAMINATION TERM 3 2017
STANDARD EIGHT, MATHEMATICS

READ THESE INSTRUCTIONS CAREFULLY

1. You have been given the 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 booklet.

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 three-figure 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 Question 1 – 50 four answers are given. The answers are lettered A, B, C and D. In each case only **ONE** of the four answers is correct. Choose the correct answer.
10. On the answer sheet the correct answer is to be shown by drawing a **dark line** inside the box in which the letter you have chosen is written.

EXAMPLE

In the question Booklet

24. A cylinder has a volume of 831.6cm^3 . If the height of the cylinder is 15cm, what is the diameter? (Take $\pi = \frac{22}{7}$).
- A. 4.2cm B. 8.4cm
C. 55.44cm D. 0.42cm

The correct answer is **B**

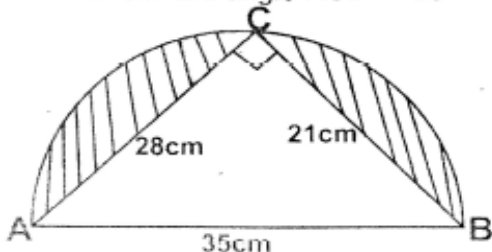
On the answer sheet:

4 | (B) | (C) | (D) **14** | (B) | (C) | (D) **24** | (B) | (C) | (D) **34** | (B) | (C) | (D) **44** | (B) | (C) | (D)

In the set of boxes numbered 24, the box with the letter **B** printed in it is marked.

11. 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.

- Write four hundred thousand and nine, sixteen hundredths in figures
 - 400,916
 - 409,000.16
 - 400,009.016
 - 400,009.16
- What is the place value of 8 obtained after working out the division $0.1664 \div 12$?
 - Thousandths
 - Ten thousandths
 - Hundred thousandths
 - Hundredths
- What is the number 39967 when rounded to the nearest thousands?
 - 40000
 - 39970
 - 30000
 - 39000
- What is the value of $\frac{5}{6}$ of $36 - 24 \times \frac{1}{6} \div \frac{2}{3}$?
 - $1\frac{1}{2}$
 - 84
 - 24
 - 26
- In the diagram below, AB is the diameter of a semi-circle AB = 35cm, AC = 28cm, BC = 21cm and angle ACB = 90°



- What is the area of the shaded part?
(Take $\pi = \frac{22}{7}$)
- 481.25cm^2
 - 294cm^2
 - 187.25cm^2
 - 668.5cm^2
- A trader had rice packed as follows:
 - 70 packets of 2kg each
 - 84 packets of 1kg each
 - 60 packets of 500g each
 - 88 packets of 250g each
 He repacked the rice into 3kg packets. How many 3kg packets did he get?
 - 276
 - 92
 - 69
 - 17408
 - A vehicle was sold for sh. 3,150,000 through a dealer. The owner received sh.

2,800,000. What percentage commission did the dealer get?

- $111\frac{1}{9}\%$
 - $12\frac{1}{2}\%$
 - $87\frac{1}{2}\%$
 - 11%
- What is the size of angle XZY in the triangle below?
 - 68°
 - 72°
 - 45°
 - 40°
 - A bicycle wheel has a radius of 35cm. What distance in kilometres does the wheel cover after 5000 revolutions? (Take $\pi = \frac{22}{7}$)
 - 11000
 - $5\frac{1}{2}$
 - 5500
 - 11
 - A car moving at a speed of 80km/h covers a certain distance in 3 hours. At what speed would it move to cover the same distance in $2\frac{1}{2}$ hours?
 - 96km/h
 - 240km/h
 - 90km/h
 - 100km/h
 - The GCD of two numbers is 32 and their LCM is 192. If one of the numbers is 96, what is the other number?
 - 74
 - 78
 - 64
 - 84
 - The price of fuel increased from sh. 96 to sh. 144. What was the percentage increase?
 - $33\frac{1}{3}\%$
 - 50%
 - $66\frac{2}{3}\%$
 - 150%
 - What is the next number in the series 4, 9, 13, 22, 35, _____?
 - 54
 - 57

C. 55

D. 56

14. What is the value of x in the equation

$$\frac{x}{5} + \frac{(x + 4)}{3} = 4$$

- A. 10
B. 8
C. 7
D. 5

15. Which is the correct order of writing the fractions $\frac{3}{10}$, $\frac{4}{11}$, $\frac{2}{7}$ and $\frac{1}{3}$ from the largest to the smallest?

- A. $\frac{1}{3}$, $\frac{2}{7}$, $\frac{3}{10}$, $\frac{4}{11}$
B. $\frac{4}{11}$, $\frac{3}{10}$, $\frac{2}{7}$, $\frac{1}{3}$
C. $\frac{4}{11}$, $\frac{1}{3}$, $\frac{3}{10}$, $\frac{2}{7}$
D. $\frac{2}{7}$, $\frac{3}{10}$, $\frac{1}{3}$, $\frac{4}{11}$

16. In the number 27486 what is the difference between the total value of the digit 7 and 4?

- A. 6600
B. 7400
C. 7000
D. 400

17. What is 114171 divided by 19?

- A. 69
B. 609
C. 6009
D. 60009

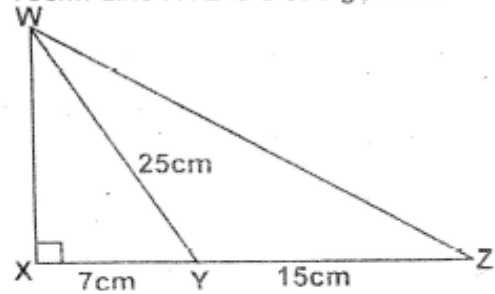
18. During an election four candidates, Ndichu, Ramogi, Mutua and Joho contested for a seat. 114000 people voted but 6000 ballot papers were spoilt and were therefore not counted. Ndichu got 15600 votes, Ramogi got 38400 votes and Mutua got 15000 votes. How many votes did the winning candidate get?

- A. 45000
B. 39000
C. 38400
D. 69000

19. A car was sold at sh. 240,000 through a dealer. The dealer charged the owner a 10% commission on the selling price. How much did the owner get?

- A. Sh. 24,000
B. Sh. 239976
C. Sh. 264000
D. Sh. 216,000

20. In the figure below, angle $WXY = 90^\circ$, $XY = 7\text{cm}$, $WY = 25\text{cm}$ and $YZ = 15\text{cm}$. Line XYZ is a straight line.



What is the area of triangle WYZ ?

- A. 180cm^2
B. 264cm^2
C. 84cm^2
D. 360cm^2

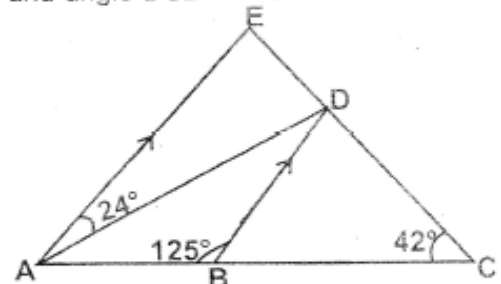
21. Which one of the ratios given represents 75%?

- A. 4:3
B. 3:7
C. 7:3
D. 3:4

22. A mother is 4 times as old as her daughter. Which of the expressions describes their ages eight years ago if the daughter is m years old now?

Daughter	Mother
A. $m - 8$	$4(m - 8)$
B. $m - 8$	$4m - 8$
C. m	$4m - 8$
D. m	$4m$

23. In the figure below, AE is parallel to BD . Angle $EAD = 24^\circ$, angle $DBA = 125^\circ$ and angle $DCB = 42^\circ$.



What is the size of angle EDA ?

- A. 42°
B. 83°
C. 73°
D. 97°

24. Which quadrilateral has all the properties listed below?

- Diagonals are equal
- All angles are equal

- Diagonals bisect each other at right angles
 - All sides are equal
- A. Square B. Rhombus
C. Rectangle D. Trapezium

25. Construct a triangle XYZ such that XY = XZ = 7cm and YZ = 5cm. Draw the circle that passes through the points X, Y and Z. What is the measure of the radius of the circle?

- A. 3.8cm B. 1.8cm
C. 4.4cm D. 8.8cm

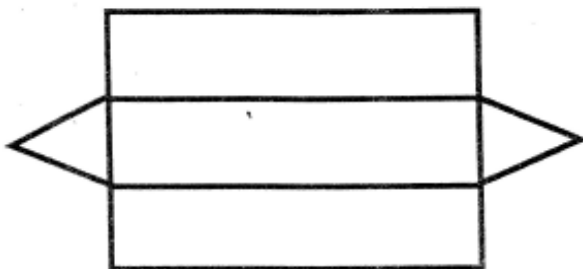
26. The cash price of a mobile phone is 20% less than the hire purchase price. The hire purchase terms require a deposit of sh. 6825 and eight monthly instalments of sh. 2,100. What is the cash price of the mobile phone?

- A. Sh. 23,625
B. Sh. 18,900
C. Sh. 19,687.50
D. Sh. 20,265

27. The diagonals of a rhombus are 8cm and 15cm respectively. What is the perimeter of the rhombus?

- A. 17cm B. 68cm
C. 8.5cm D. 34cm

28. The diagram below is a net of a solid.



When folded, which solid is formed?

- A. Rectangular prism
B. Rectangular pyramid
C. Triangular prism
D. Triangular pyramid

29. What is the value of $\frac{3}{8}$ of $\frac{tm^2 - n}{2m}$

- A. $5\frac{1}{3}$ B. 2
C. $8\frac{3}{4}$ D. $2\frac{1}{8}$

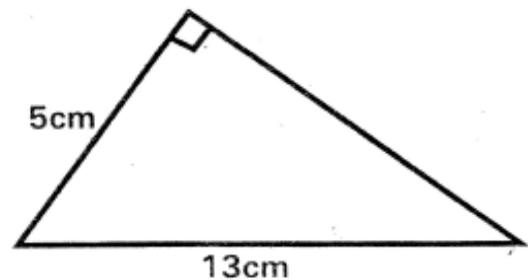
30. The table below shows distance in kilometres between towns V, W, X, Y and Z.

V				
60	W			
135	90	X		
180	135	69	Y	
300	225	150	120	Z

What is the distance from V to Z via Y?

- A. 330km B. 420km
C. 200km D. 300km

31. The diagram below shows a shamba drawn to a scale 1:50000



What is the actual area in hectares?

- A. 1625 B. $812\frac{1}{2}$
C. 750 D. 0.75

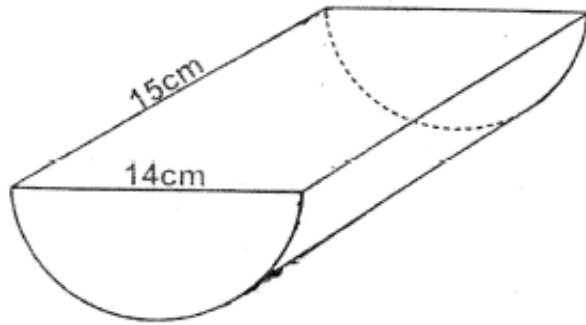
32. A train left Kampala at 0840h and arrived in Mombasa at 0310h. How long did the journey take?

- A. $18\frac{1}{2}$ hours
B. $5\frac{1}{2}$ hours
C. 11 hours 30 mins
D. $7\frac{1}{2}$ hours

33. In a certain leap year 13th April was on Friday. What day was 8th January the same year?

- A. Sunday B. Monday
C. Saturday D. Tuesday

34. The diagram below represents a solid. What is its surface area? (Take $\pi = \frac{22}{7}$)

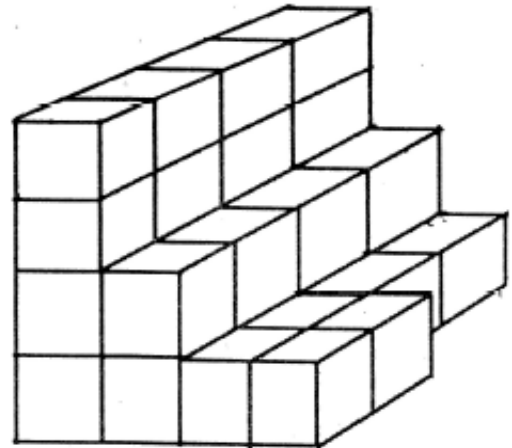


- A. 2310cm^2 B. 1156cm^2
 C. 694cm^2 D. 484cm^2
35. A trader bought an item for sh. 8000 and sold it to a hawker at a profit of 15%. The hawker later sold it at a loss of 15%. How much did the hawker sell the item?
 A. Sh. 8000 B. Sh. 7820
 C. Sh. 8740 D. Sh. 9200
36. What is the value of $\frac{6.4 \times 73.5}{16.8}$?
 A. 0.028 B. 0.28
 C. 2.8 D. 28.0
37. Leonidah paid sh. 2,100 for a dress after getting a discount of 20%. What was the marked price for the dress?
 A. Sh. 1,750
 B. Sh. 2,625
 C. Sh. 2,520
 D. Sh. 420
38. 10 men take 16 days to paint a school. After working for 4 days, 2 more men are employed. How long does it take to finish painting altogether?
 A. 10 days B. 12 days
 C. 14 days D. 13 days
39. Madango had sh. 400 more than Kimeu. Kimeu had sh. x and Nekesa had one third of what Madango had. They had a total of sh. 4000. Which one of the following equations correctly represents the information given?
 A. $7x + 800 = \text{sh. } 12000$
 B. $1204x + 400 = \text{sh. } 12000$
 C. $X + 1600 = \text{sh. } 12000$
 D. $7x + 1600 = \text{sh. } 12000$

40. What is the value of K in the magic square?

	54	24
42	30	
36		K

- A. 48 B. 18
 C. 6 D. 12
41. How many cubes are used to make the stack below?

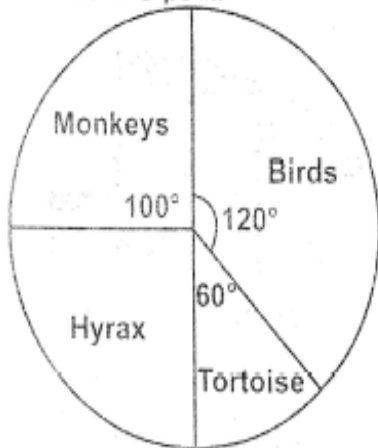


- A. 32 B. 30
 C. 31 D. 28
42. A motorist took 13 minutes 20 seconds to cover a distance of 20km. What was her speed in metres per second?
 A. 90 B. 324
 C. 25 D. 30
43. Mwadime deposited sh. 10,800 in a savings bank for 12 months. At the end of that period he withdrew sh. 13,500. At what rate was the bank paying interest?
 A. 25% B. 10%
 C. 12.5% D. 11.5%
44. For every sh. 600, Wambugu has, Kioko has sh. 400. Omondi has sh. 400 less than Kioko. If Wambugu has sh. 2,400, how much is Omondi having?
 A. Sh. 1,600
 B. Sh. 2,000

- C. Sh. 1,400
- D. Sh. 1,200

45. A rectangular container has a square base of side 80cm. Its height is 55cm. How many litres of water does it hold when full?
- A. 352000
 - B. 352
 - C. 4400
 - D. 4.4

46. The pie-chart shows the number of animals in a park.



If there are 4000 hyraxes, what is the total number of monkeys and birds?

- A. 11000
 - B. 5000
 - C. 6000
 - D. 18000
47. Ten pupils in a class sat for a test and had a mean score of 31.5. The scores of nine of the pupils were 15, 20, 25, 30, 35, 40, 40, 40 and 45. What was the score of the tenth pupil?
- A. 50
 - B. 40
 - C. 35
 - D. 25

48. Mudavadi bought the following items from a kiosk:
- 2 loaves of bread @ sh. 55
 - $1\frac{3}{4}$ kg of meat @ sh. 300
 - 3kg of rice for sh. 196

What balance did he receive if he paid for the items using a sh. 1000 note?

- A. Sh. 831
 - B. Sh. 449
 - C. Sh. 169
 - D. Sh. 224
49. What is the expression $5(2x + 3y + 8) + 8(x - y + 4)$ in its simplified form?
- A. $18x - 7y + 72$
 - B. $18y + 7x + 72$
 - C. $18x + 7y - 72$
 - D. $18x + 7y + 72$

50. What is the next shape in the above pattern?

