KCPE ASSESSMENT ONE

STANDARD EIGHT
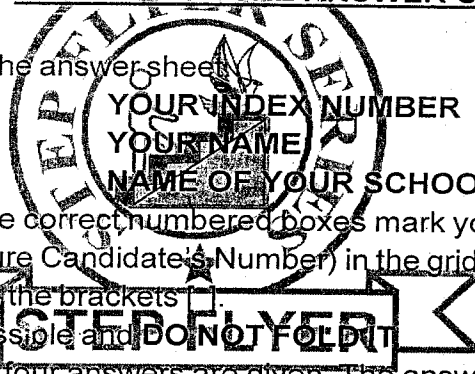
FIRST TRIAL - 2020

8

TIME: 2HRS

STEP FLYER

MATHEMATICS

READ THESE INSTRUCTIONS CAREFULLY

1. You have been given this question booklet and a separate answer sheet. The question paper 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 this question booklet.

HOW TO USE THE ANSWER SHEET

4. Use an ordinary pencil only.
5. Make sure 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 brackets [ ].
8. Keep the 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 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 paper.
    4. 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

    4. [A] [B] [C] [D]   **14.** [A] [B] [C] [D]   **24.** [A] [B] [C] [D]   **34.** [A] [B] [C] [D]

    In the first set, the box with the letter **B** printed in it is marked.

11. Your dark line **MUST** be within the brackets.

12. For each question **ONLY ONE** bracket is to be marked in each of four brackets.

This question paper consists of 8 printed pages.

1. Which one of the following number is **twelve million one hundred and two thousand and twelve** in symbols?
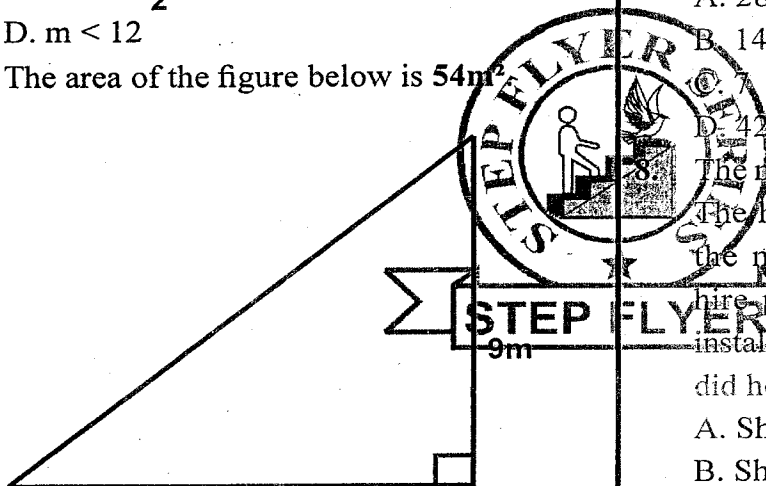   A. 12120012
   B. 12012012
   C. 12102012
   D. 12102102

2. What is the total value of digit **6** in the number **105673**?
   A. Hundreds
   B. 6000
   C. Thousands
   D. 600

3. Simplify the inequality: **3m - 5 < 7**
   A. m < 4
   B. m > 4
   C. m < 11$\frac{1}{2}$
   D. m < 12

4. The area of the figure below is **54m²**.

   Find its perimeter.
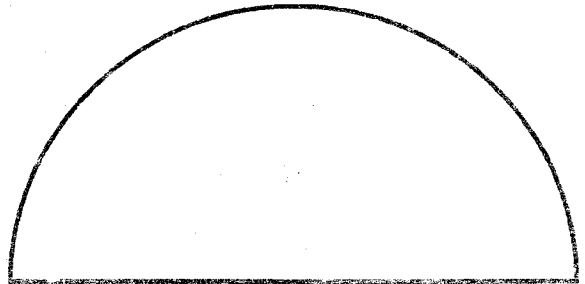   A. 12m
   B. 15m
   C. 21m
   D. 36m

5. The average weight of **5** packets is **3.2kg**. The average weight of four of the packets is **3.1kg**. What is the weight of the fifth packets?
   A. 6.6kg
   B. 3.6kg
   C. 3.3kg
   D. 2.7kg

6. A car travelled **200m** in 5 seconds. What is the speed in **km/h**?
   A. 14.4km/h
   B. 40km/h
   C. 144km/h
   D. 80km/h

7. The circumference of the semi-circle below is **44cm**.

   Calculate its diameter.
   A. 28
   B. 14
   C. 7
   D. 42

8. The marked price of a T.V set is **Shs. 36000**. The hire purchase price is 20% more than the marked price. Timothy bought it on hire-purchase. He paid 12 equal monthly installments of **Shs. 2500**. How much deposit did he pay for the T.V set?
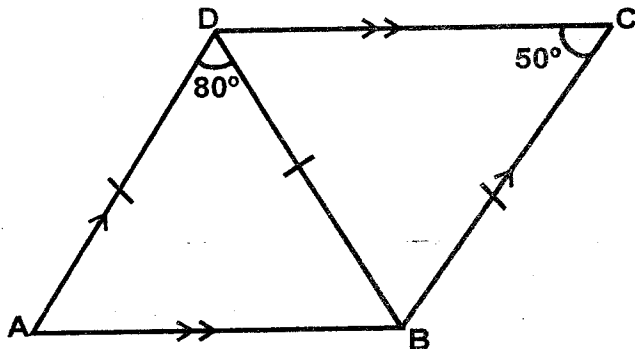   A. Shs. 13200
   B. Shs. 30000
   C. Shs. 36000
   D. Shs. 6000

9. What is the next number in the pattern below?
   11, 13, 16, 21, 28, _____
   A. 37
   B. 39
   C. 41
   D. 38

10. A meeting that took $4\frac{3}{4}$ hrs ended at **1.15p.m**. At what time did the meeting start?
    A. 8:30p.m
    B. 9:30a.m
    C. 7:30a.m
    D. 8:30a.m

11. The figure below shows a quadrilateral ABCD. Line DA = DB = BC. Angle ADB = 80°.

Find the measure of angle CBD.

A. 80°   B. 65°

C. 50°   D. 100°

12. Find the value of: $\dfrac{(q - t) + 2n}{n - q}$

given that q = 3, t = q - 1, n = 2q + 1.

A. 4

B. $3\dfrac{3}{4}$

C. $4\dfrac{3}{4}$

D. $15\dfrac{1}{2}$

13. A book has 24 pages. There are a total of 12960 words in the book. What is the average number of Words per line if there are 36 lines in each page?

A. 360

B. 540

C. 15

D. 10

14. Kamau is paid a basic salary of Shs. 20,000. He is also given a commission of 8% for the sales he make. In a certain month he sold goods worth Shs. 420000. How much did he earn altogether?

A. Shs. 33600

B. Shs. 23360

C. Shs. 53600

D. Shs. 43600

15. What is the value of w in the equation.

$\dfrac{3}{7}(21w - 14) + \dfrac{3}{4}(8w - 4) = 6$?

A. 1

B. 3

C. 5

D. 8

16. What is the sum of the HCF and LCM of 18, 54 and 72?

A. 18

B. 216

C. 198

D. 234

17. Evaluate the following;

$\dfrac{1.8 \times 5.6 \times 0.9}{0.72 \times 3.6}$

A. 0.35

B. 3.5

C. 35

D. 0.035

18. The area of a square garden is 26.01m². What is the measure of the length of the garden?

A. 51m

B. 5.10m

C. 0.05m

D. 6.5m

19. A family uses 500ml packet of milk each day. How many litres of milk did the family use in the month of February 2011?

A. 14.5L

B. 140L

C. 14L

D. 14000L

20. Kware bought fruits. He ate 12 fruits and then gave his three friends 9 fruits each. If he still remained with 9 fruits for himself. How many fruits did he buy altogether?

A. 48

B. 36

C. 57

D. 72

21. A shopkeeper had money in form of notes as shown in table below.

No of notes	2	4	8	5	15
Value of notes in Shs.	1000	500	200	100	50

He changed all the money into **Shs. 20 coins.** How many coins did he get?
A. 342
B. 343
C. 342.5
D. 6850

22. Arrange $\frac{5}{9}$, $\frac{3}{7}$, $\frac{1}{2}$ and $\frac{2}{3}$ from the smallest to the largest.
A. $\frac{5}{9}, \frac{3}{7}, \frac{2}{3}, \frac{1}{2}$ B. $\frac{3}{7}, \frac{1}{2}, \frac{5}{9}, \frac{2}{3}$
C. $\frac{3}{7}, \frac{5}{9}, \frac{1}{2}, \frac{3}{3}$ D. $\frac{1}{2}, \frac{2}{3}, \frac{3}{7}, \frac{5}{9}$

23. The price of a **2kg** packet of wheat flour increased from **Shs. 120** to **Shs. 150.** What was the percentage increase?
A. 30%
B. 25%
C. 20%
D. 15%

24. 10 tonnes of maize were packed into small bags of **12.5kg.** How many small bags were obtained altogether after packing?
A. 80
B. 8000
C. 800
D. 125000

25. Karen poured **55** litres of water into a cylindrical container of diameter **50cm.** What was the depth of the water in the container? (**Take** $\pi = \frac{22}{7}$)
A. 28cm
B. 24cm
C. 14cm
D. 35cm

26. What is the value of:
$\frac{1}{2}$ of 10 - 4 x $\frac{1}{8}$ ÷ $\frac{1}{4}$?
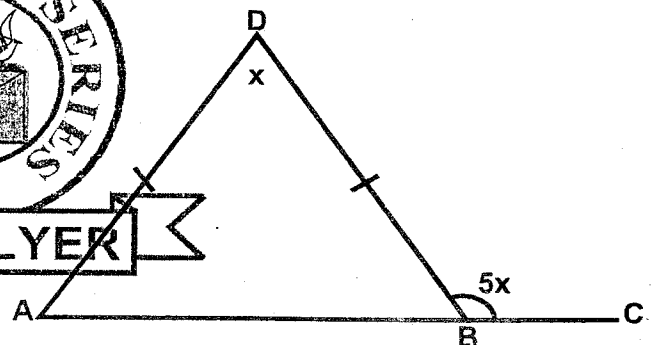A. $1\frac{1}{2}$
B. 6
C. 1
D. 3

27. In a meeting the ratio of men to women was 3:2. In the afternoon $\frac{2}{3}$ for women left the meeting. If **12** women left. How many men attended the meeting?
A. 18
B. 27
C. 36
D. 15

28. A boy cycled from home to marked at a speed of **24km/h** and took **30 min.** He cycled back home the same distance at a speed of **16km/h**, how long did he take to travel from market to home?
A. 15 min
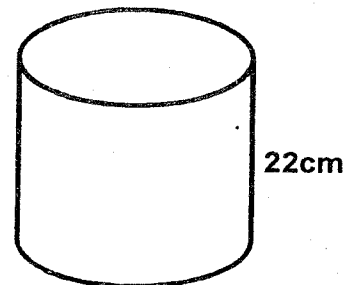B. 1 hr
C. 45 min
D. $\frac{3}{4}$ min

29. In the figure below **ABC** is a straight line. **DAB** is a triangle.

What is the size of angle **DAB**?
A. 80°   B. 20°
C. 70°   D. 100°

30. The area of the curved surface of a cylinder is **1452cm²** and the height is **22cm.**

22cm

What is the radius of the cylinder?
A. 1.5cm   B. 21cm
C. 14cm   D. 10.5cm

31. In four years time Alice will be twice as old as her daughter and the sum of their ages will be **72** years. How old is the daughter now?
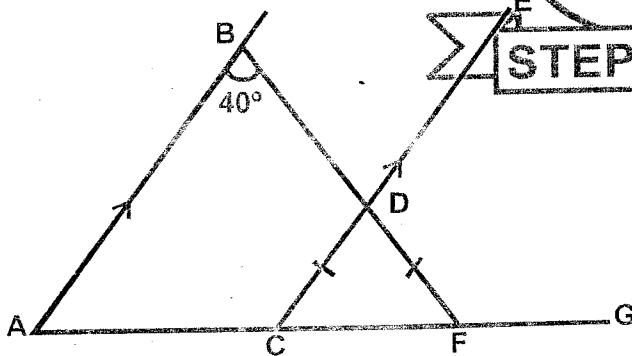   A. 20 years
   B. 16 years
   C. 24 years
   D. 12 years

32. The scale of a map is **1:30000**. What is the actual length of a road drawn **5cm** on a map?
   A. 15km
   B. 6km
   C. 0.6km
   D. 1.5km

33. What is the place value of digit **3** in the product of **2.51** and **3.4**?
   A. Ones
   B. Tenths
   C. Hundredths
   D. Thousandths

34. In the figure below line **AB** is parallel to line **CE**, line **ACFG** is a straight line, angle **ABD** = **40°** line **DC = DF**.

   What is the size of angle **DFG**?
   A. 140°
   B. 110°
   C. 70°
   D. 40°

35. **12** men can complete doing a certain job in **10** days. How many more men would be required if the same job is to be completed in **8** days?
   A. 15   B. 3
   C. 2   D. 4

36. Simplify:
   $$2(3 - x) + \frac{1}{3}(9x + 12 - 3)$$
   A. x + 9
   B. 2x - 9
   C. 5x + 11
   D. 5x - 11

37. The sum of two parallel sides of a trapezium is **32cm**. The perpendicular distance between the two parallel lines is **14cm**. Calculate its area.
   A. 448cm²
   B. 214cm²
   C. 224cm²
   D. 112cm²

38. Mr. Magu bought the following items from a shop.
   - *3 bars of soap for Shs. 420.*
   - *2 - 2kg packets of maize flour at Shs. 40 per kg.*
   - *$\frac{3}{4}$ kg of sugar @ Shs. 120.*
   - *2 packets of biscuits @ Shs. 45.*

   He paid for the items using Shs. **1000** note. How much balance did he receive?
   A. Shs. 320
   B. Shs. 240
   C. Shs. 300
   D. Shs. 280

39. Convert $12\frac{1}{2}$% into decimal.
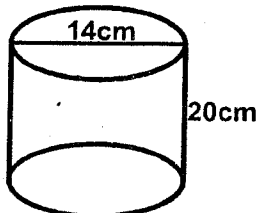   A. 1.25
   B. 12.5
   C. 0.0125
   D. 0.125

40. Kuria has **x** mangoes, Ann has **6** more mangoes than Kuria while Maxin has twice as many mangoes as Ann. Which expression below shows the total number of mangoes they all had?
   A. 4x + 18
   B. 4x + 12
   C. 3x + 12
   D. 3x + 6

STD 8   MATHEMATICS   PG 5

41. Which one of the following statements is **not true** about a parallelogram?
    A. Has two pair of parallel lines.
    B. Diagonals are unequal.
    C. Diagonals bisect at an angles of **90°**.
    D. Opposite sides are equal and parallel.
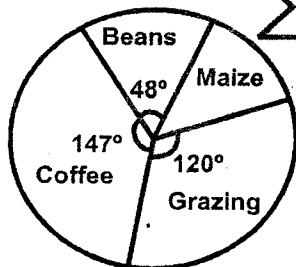
42. The diagram below represents an open cylindrical tin.

Evans wrapped a piece of paper on the curved part. What is the area of the paper that was wrapped?
    A. 154cm²   B. 308cm²
    C. 880cm²   D. 1188cm²

43. What is the difference in the number of edges and vertices of an open cuboid?
    A. 4   B. 5
    C. 6   D. 20

44. The chart below shows how a farmer used his farm.

If **0.9 ha** of the farm was used to grow maize. What was the size of the whole farm?
    A. 7.5ha
    B. 7.2ha
    C. 9 ha
    D. 6 ha

45. Construct triangle **PQR**, line **PQ = 7cm**, **PR = 8.5cm** and angle **PQR = 65°**. Drop a perpendicular from point **R** to meet line **PQ** at **T**. Measure angle **PRT**.
    A. 48°   B. 28°
    C. 23°   D. 90°

46. A trader sold an item for **Shs. 1200** making **20%** loss, how much would he have sold the item in order to make **30% profit**?
    A. Shs. 1500   B. Shs. 1560
    C. Shs. 2150   D. Shs. 1950

47. Work out: **40 - 2 x (6 of 13) ÷ 3 + 16**
    A. 4   B. 18
    C. 14   D. 28

48. Salima paid **Shs. 600** for a shirt after he was allowed a discount of **20%**. How much was the discount?
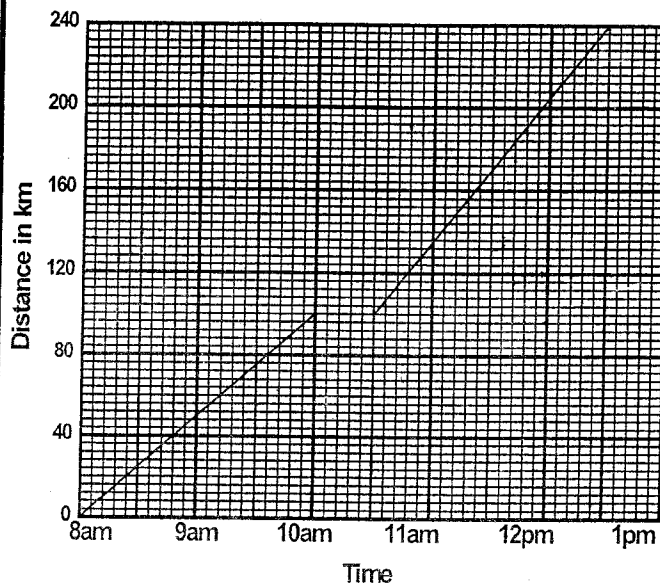   A. Shs. 120   B. Shs. 720
    C. Shs. 750   D. Shs. 150

49. The table below shows the bus fare charged between town **A** and **E** in shillings.

A				
50	B			
120	80	C		
160	100	30	D	
220	150	90	70	E

Kamara travelled from town **E** to town **A** via **C**. How much did he pay?
    A. Shs. 220   B. Shs. 210
    C. Shs. 300   D. Shs. 200

50. The graph below shows a journey of a motorist. What was his average speed after resting?

    A. $53\frac{1}{3}$ km/h   B. 56km/h
    C. 140km/h   D. 70km/h