THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Primary Education

503

- MATHEMATICS -

Oct. 2018 – 2 hours

1. What is 440444.04 written in words?

A. Forty four thousand four hundred forty four and four tenths.
B. Four hundred and forty thousand four hundred and forty four and four hundredths.
C. Four hundred and forty four thousand four hundred and forty four and four hundredths.
D. Four hundred and forty thousand four hundred and forty four and four tenths.

2. What is $2\frac{7}{9} \times \left(\frac{2}{5}\right)^2 \div \left(1\frac{2}{3}\right)^2$?

A. $\frac{4}{25}$

B. $\frac{4}{9}$

C. $\frac{20}{21}$

D. $\frac{18}{25}$

3. What is the value of 600.79 – 40.0032 + 5.01 to the nearest hundredths?

A. 565.80
B. 565.79
C. 565.8
D. 565.797

4. What is the total value of digit 9 in $3.45 \times 0.27 \times 0.3$?

A. $\frac{9}{10}$

B. $\frac{9}{100}$

C. $\frac{9}{1000}$

D. $\frac{9}{10000}$

Working Space

5. What is the value of

$$\frac{0.124 \times 3.84 \times 1.1}{0.032 \times 0.62}?$$

A. 264
B. 26.4
C. 2.64
D. 0.264

6. What is the value of 5.517×14.5 correct to 2 decimal places?

A. 79.10
B. 79.99
C. 80.0
D. 80.00

7. A lorry carrying a load of thirty bags of sugar each 90 kg and forty bags of rice each 25 kg. If the load is half the mass of the lorry when empty, what is the total mass of the loaded lorry in tonnes?

A. 3.7
B. 5.55
C. 7.4
D. 11.1

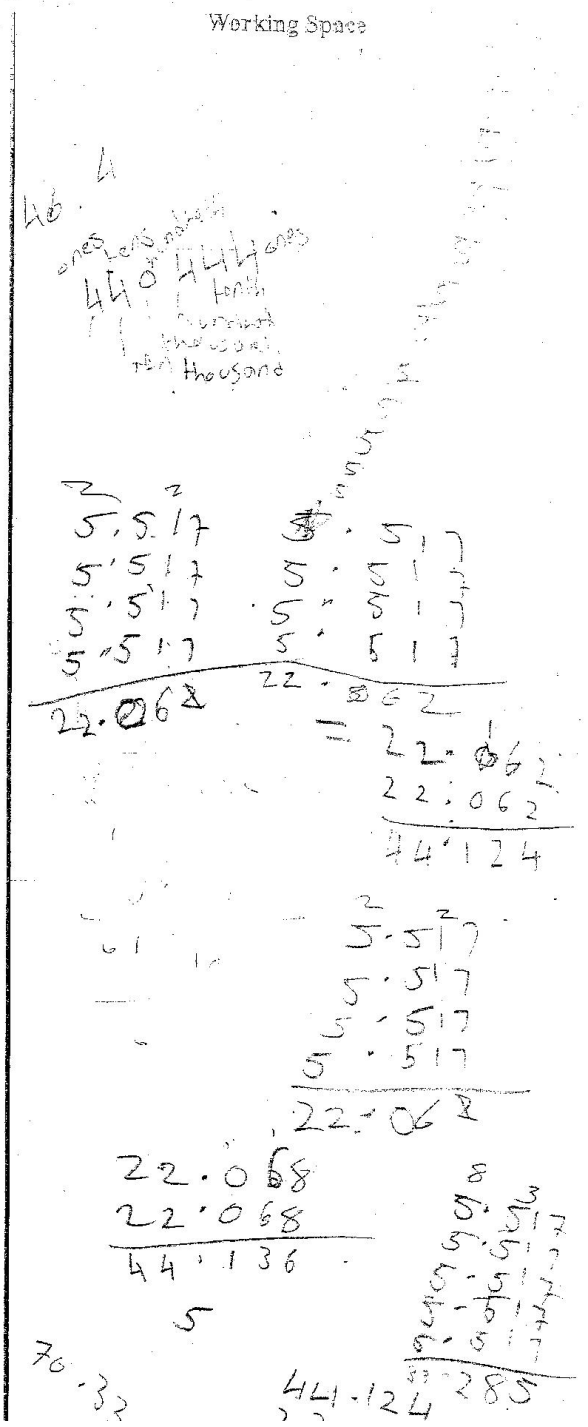
8. A soccer ball is dropped from a height of 240 cm. For every bounce the height decreases by 60%. How high will the ball rise on the second bounce?

A. 38.4 cm
B. 86.4 cm
C. 96 cm
D. 144 cm

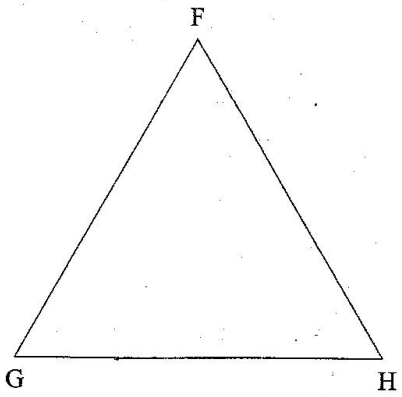
9. Which one of the following statements is true?

A. A rectangle is a square
B. A trapezium is a parallelogram
C. A parallelogram is a rectangle
D. A rhombus is a parallelogram

Working Space



10. On triangle FGH below, construct a perpendicular line from point F to meet line GH at S. Bisect angle FSH and let the bisector meet line FH at T.



What is the size of angle **FTS**, when measured?

A. 105°
B. 75°
C. 45°
D. 30°

11. What is the value of n in the equation $5n + 3\,(n-4) = 36$?

A. 8
B. 6
C. 5
D. 3

12. In a ranch the ratio of goats to sheep is 4:3, sheep to cows 5:2 and cows to donkeys is 3:2. What is the ratio of goats to donkeys?

A. 1:2
B. 1:5
C. 2:1
D. 5:1

Working Space

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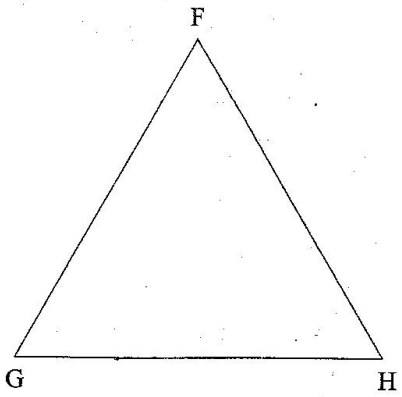

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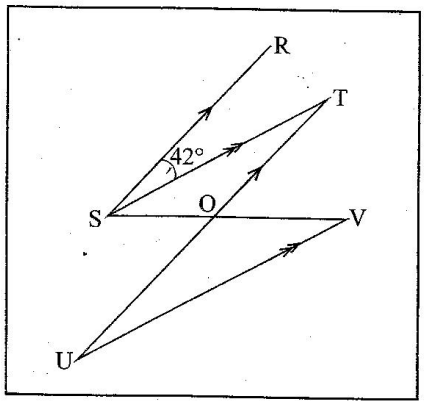
Working Space

17. A field was to be fenced using 816 posts placed 4 metres apart, leaving a 4 metre space for the gate. If 3 strands of wire were to be used, what would be the total length of wire required?

A. 3260
B. 3264
C. 9780
D. 9792

18. In the figure below line **SR** is parallel to line **TU**, while line **ST** is parallel to line **UV**. Line **OS=OT** and angle **RST** is 42°.



What is the size of angle **TOV**?

A. 48°
B. 84°
C. 96°
D. 138°

19. A saleslady earns a basic monthly salary of sh 15000. She also gets a commission of 2% on the value of goods sold above sh 250000. In a certain month she sold 10 television sets @sh 26000, 5 refrigerators @sh 30000, 10 microwaves @sh 16000, one cooker for sh 84000 and another for sh 52000. How much did she earn that month, altogether?

A. sh 29120
B. sh 24120
C. sh 20000
D. sh 9120

Working Space

20. Omondi had two children, Tina and Ahmed. When Tina was born Ahmed was 4 years old, Omondi was m years old while his wife was 5 years younger than him. What was their total age after 10 years?

A. $2m+9$
B. $m+19$
C. $2m+39$
D. $2m+49$

21. What is the next number in the pattern below?

$97\frac{1}{2}$, $80\frac{1}{2}$, $67\frac{1}{2}$, $56\frac{1}{2}$, _____,

A. $39\frac{1}{2}$

B. $47\frac{1}{2}$

C. $49\frac{1}{2}$

D. $63\frac{1}{2}$

22. What is the value of the operation below?

$3\frac{3}{7} \div \frac{6}{7} + \frac{1}{2}$ *of* $16 - \frac{1}{2} \div \frac{1}{2}$

A. 143

B. $62\frac{1}{2}$

C. 11

D. $10\frac{135}{196}$

23. A conference room measures 24 m by 12 m. Square carpets of 4 metres long, each costing sh 12000 were used to completely cover the floor. How much did it cost to cover the floor?

A. sh 48000
B. sh 72000
C. sh 216000
D. sh 864000

Working Space

Working Space

24. Eighteen pupils were given a playground to clear in 1 h 40 min. If six of the pupils did not turn up, how much longer did it take the rest of the pupils to clear the playground?

A. $33\frac{1}{3}$ min
B. 50 min
C. 2 h 30 min
D. 3 h 20 min

25. A train timetable for station **J** to **O** is given below

Station	Arrival	Departure
J		06 00h
K	08 00h	08 45h
L	12 20h	13 10h
M	15 10h	16 00h
N	18 30h	19 00h
O	19 30h	

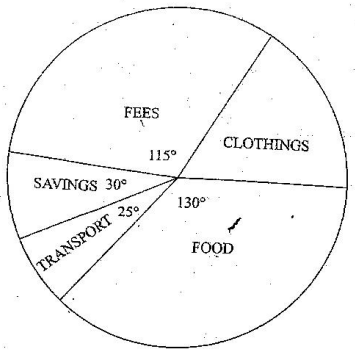
How long does the train take from station **L** to **N**?

A. 6 h 40 min
B. 6 h 10 min
C. 5 h 50 min
D. 5 h 20 min

26. What is the sum of the vertices and faces in a triangular pyramid?

A. 11
B. 10
C. 8
D. 7

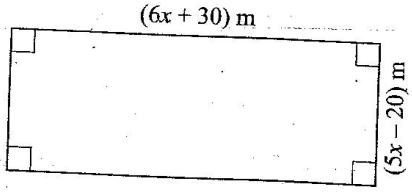
27. The pie chart below shows how Demu spends his monthly salary on food, clothing, fees, transport and savings.



If he spends sh 6000 on clothing, how much more money does he spend on food than fees?

A. sh 1500
B. sh 11500
C. sh 13000
D. sh 36000

28. The perimeter of the figure below is 1120 metres.



What is the area of the figure in ares?

A. 7.59
B. 75.9
C. 759
D. 75900

Working Space

115
30
145
25
170
130
300

300

6x

29. The marked price of a wheelbarrow is sh 8600. Abach was given $8\frac{1}{2}\%$ discount while Asha was given 7% discount for a similar wheelbarrow. How much money was received as discount by Abach and Asha all together?

A. sh 129
B. sh 602
C. sh 1333
D. sh 2064

Working Space

30. Wakesho collects 150 eggs daily from her poultry. She sells the eggs at sh 9 each. How much money did she make in the month of February, 2008?

A. sh 40500
B. sh 39150
C. sh 37800
D. sh 1350

31. Mogaka pays sh 300 for his transport, sh 400 for his 2 sons and sh 100 for his sister daily. If the fare went up by 15%, how much will he spend in six days?

A. sh 5520
B. sh 4800
C. sh 4080
D. sh 920

32. Mwikali collected money in the following denominations:
8 one thousand shillings notes
18 five hundred shillings notes
70 two hundred shillings notes
100 fifty shillings notes

One third of the money was changed into one thousand shillings notes, while the rest was changed into five hundred shillings notes.

How many notes did she have altogether?

A. 12
B. 24
C. 48
D. 60

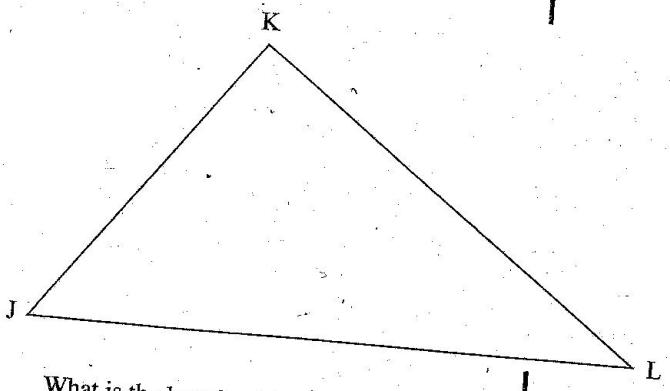
33. The mean height of 8 adults is 1 m 42 cm. The height of six of the adults were recorded as follows:
1 m 36 cm, 1 m 41 cm, 1 m 52 cm, 1 m 30 cm, 1 m 50 cm, 1 m 37 cm

The remaining two adults are of equal heights. What is the height of each of the remaining adults?

A. 1 m 40 cm
B. 1 m 41 cm
C. 1 m 43 cm
D. 1 m 45 cm

Working Space

34. Construct a circle touching the sides of triangle **JKL** drawn below.



What is the length of the diameter of the circle?

A. 2 cm
B. 4 cm
C. 5 cm
D. 10 cm

35. What is $\frac{12x+9xy+18y}{9y}$ in its simplest form?

A. $\frac{4x+3xy+6y}{3y}$

B. $\frac{12x+xy+18y}{y}$

C. $13x+2$

D. $12x+9xy+2$

Working Space

36. The number of registered voters in a country was 35940. Three candidates: Hekima, Bidii and Tajiri vied for a seat. Hekima obtained 16048 votes, Bidii garnered 14353 votes, while Tajiri got 3439 votes. The number of spoilt votes was twice as many as that of non-voters. If all the spoilt votes were added to those obtained by Tajiri, how many votes would he have gotten?

A. 1400
B. 2100
C. 4139
D. 4839

37. Which one of the following numbers is two million thirty five thousand and eight hundredths?

A. 2035800
B. 2035000.08
C. 235000.08
D. 235000.008

38. The pupil population of a certain school was 900. The ratio of boys to girls was 5:4. One day 5% of the girls and 2% of the boys went for a competition. How many pupils remained in the school on that day?

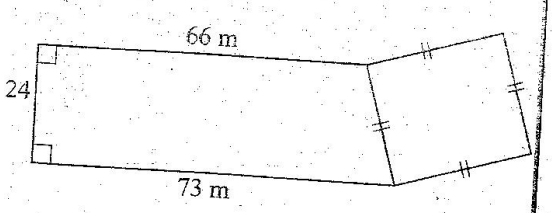
A. 603
B. 837
C. 867
D. 870

39. What is the place value of digit 7 in $16.05 \div 15$?

A. Ones
B. Tens
C. Tenths
D. Hundredths

40. The figure below represents a farm.

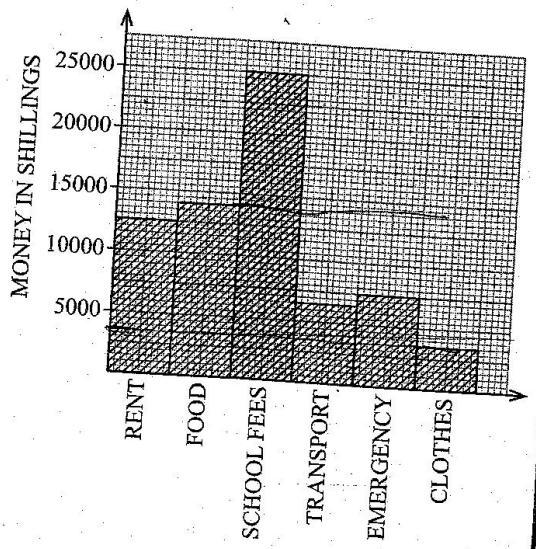
Working Space



What is the area of the farm in square metres?

A. 2209
B. 2244
C. 2293
D. 2377

41. Bestee spent his salary as shown in the graph below:



How much more money does he spend on food than clothes?

A. sh 17500
B. sh 14000
C. sh 10500
D. sh 3500

Working Spac

42. A cylindrical water tank has a diameter of 4 m and a height of 4.2 m. One hundred and twenty litres of water is used daily for domestic purposes and a similar amount for the animals. How many days will the water in the tank last if full to capacity? (Take $\pi = \frac{22}{7}$)

A. 880
B. 440
C. 220
D. 22

43. Kinje invested money with a financial institution that paid Simple Interest at the rate of 5% p.a. After 60 months the money earned an interest of sh 5000. How much had he invested?

A. sh 20000
B. sh 1666.70
C. sh 1250
D. sh 200

44. Abdi bought the following items:

5 loaves of bread @ sh 42

$\frac{1}{2}$ *kg of meat at 360 per kg*

$\frac{1}{2}$ *kg of margarine for sh 150*

$4\frac{1}{2}$ *kg of rice at sh 72 per kg*

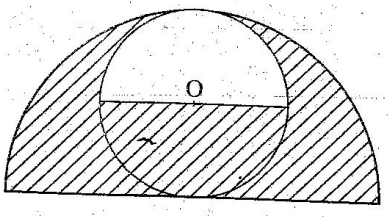
2 litres of cooking oil for sh 235

2 bars of soap @ sh 105

What was his balance if he paid using 3 five hundred shillings notes?

A. sh 1309
B. sh 536
C. sh 191
D. sh 31

45. The figure below shows a circle inscribed in a semi-circle. Part of the figure is shaded and point O is the centre of the circle.



If the diameter of the semi-circle is 4 m, what is the area of the shaded part? (Take $\pi = 3.14$)

A. 9.42 m^2
B. 6.28 m^2
C. 4.71 m^2
D. 1.57 m^2

46. A road 5 m wide is to be constructed within and along the edge of a rectangular piece of land measuring 0.62 km by 0.45 km. What is the area of the remaining piece of land in hectares?

A. 26.84
B. 27.3675
C. 27.9
D. 28.98

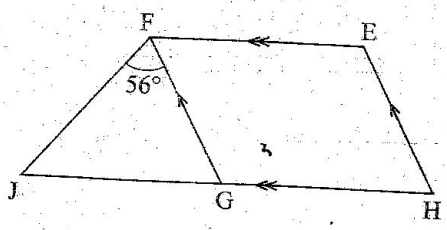
47. Pendo, Zawadi and Huruma shared a piece of land. Pendo got 0.45 of the land, Zawadi got 0.30 while Huruma got the rest. How large was Pendo's share if Huruma got 2 hectares?

A. 2.4
B. 3.6
C. 6
D. 8

Working Space

Working Space

48. In the figure below EFGH is a rhombus and FGJ is a triangle. Angle GFJ = 56° and JGH is a straight line. Line JG = line GH.



What is the size of angle HEF?

A. 68°
B. 90°
C. 112°
D. 124°

49. A hawker bought sufurias, cups and plates for sh 12000. A few cups and plates broke during transportation. He sold the remaining items as follows:

40 sufurias at sh 180 each
120 cups at sh 160 per dozen
60 plates at sh 140 per set of six

How much percentage loss did she incur on selling the items?

A. 15%
B. 17%
C. 37.5%
D. 85%

50. A man shared his profit of sh 87000 among his three children Kawira, Kioko and Zila. Kawira received $\frac{1}{4}$ of the money, Kioko received $\frac{1}{2}$ of what Kawira received while Zila received $\frac{1}{5}$ of the remainder. How much of the profit was left?

A. sh 43500
B. sh 32625
C. sh 10875
D. sh 4350