FORM ONE HOLIDAYS KEYNOTE MATHEMATICS 10 QUESTION PAPERS



FORM 1 HOLIDAYS KEYNOTE MATHEMATICS TEN QUESTION PAPERS

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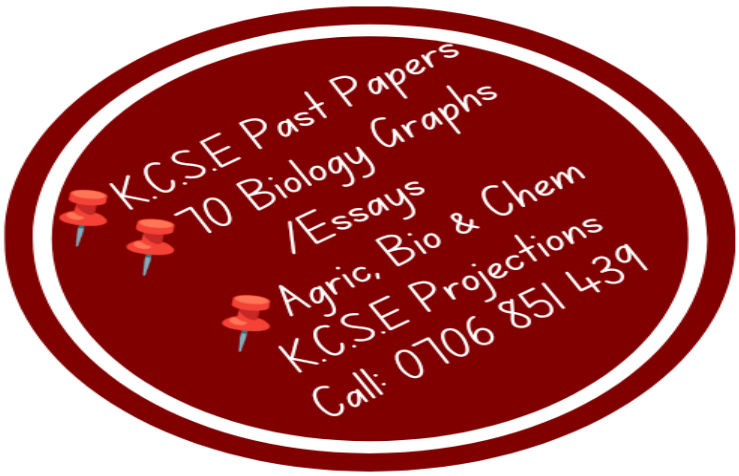
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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 01

1. (i) Evaluate without using mathematical tables or calculator. **(3 marks)**

$$\frac{36-8x-4-15\ \div\ -3}{3x-3+\ -8\ (6-(-2))}$$

(ii) Evaluate $\frac{-10-(-6)x\ (-6)\div -2+(-18)}{-8+(-6)\div(-2)\ x\ 2}$ **(3 marks)**

(iii) Work out **(4 marks)**

(a) - 6 x 9 + 8 – 20

(b) 4 x 5 – 18 ÷ 3

2. All prime numbers less than ten are arranged in descending order to form a number.

a) Write down the number formed. **(1 mark)**

b) State the total value of the second digit in the number formed in (a) above. **(1 mark)**

c) Write in figures and give the place value and total value of the third digit in the number; three million, seventy nine thousand, seven hundred and fifty nine. **(3 marks)**

d) In a certain meeting, there were 95men in attendance. There were 50 more women than men and twice as many children as men.

(i) Determine the number of people in attendance. **(3 marks)**

(ii) Find the percentage of children in attendance, correct to 3 significant figures. **(2 marks)**

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3. (a) Three bells ring at regular interval of 9 min, 15 min and 21 min. The bells ring at 5.45 p.m. By 10.00 a.m next day, how many times will they have rung together? **(3 marks)**

(b) Three automatic electric bells A B and C ring at intervals of 20 minutes, 30 minutes and 50 minutes respectively. If the bells ring together at 8.20 am, at what time will they ring simultaneously again for the first time? **(3 marks)**

(c) A number k is such that when it is divided by 27, 30 or 45, the remainder is always 7. Find the smallest possible value of k. **(4 marks)**

4. (a) A farmer has a piece of land measuring 840m by 396m. He divides it into square plots of equal size. Find the maximum area of one plot. **(3 marks)**

(b) Find the greatest number which when used to divide 126, 181, and 236, the remainder is always 5. **(4 marks)**

(c) What is the greatest mass that can be taken in an exact number of times from 144g, 216g and 126g. **(3 marks)**

5. **(a)** Convert $2.\dot{4}\dot{5}$ into a fraction in its simplest form. **(3 marks)**

(b) Convert $1.4\dot{2}\dot{3}$ into an improper fraction. **(4 marks)**

(c) The total mass of 2 sheep and 12 goats is 241.64kg. The mass of each sheep is 69.4kg. Find the average mass of each goat to the nearest kg. **(3 marks)**

6. **(i)** Evaluate: $\frac{\frac{5}{6}of\left(4\frac{1}{3}-3\frac{5}{6}\right)}{\frac{5}{12}\times\frac{3}{25}+1\frac{5}{9}\div2\frac{1}{3}}$ **(4 marks)**

(ii) Evaluate $^{1}/_{3}$ of $\left(2\,^{3}/_{4}-5\,^{1}/_{2}\right)$ x $3\,^{6}/_{7}\div\,^{9}/_{4}$ **(3 marks)**

(iii) Two boys and a girl shared some money. The elder boy got $\frac{4}{9}$ of it, the younger boy got $\frac{2}{5}$ of the remainder and the girl got the rest. Find the percentage share of the younger boy to the girl's share. **(3 marks)**

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7. **(a)** Show that 8260439 is exactly divisible by 11, using test of divisibility. **(3 marks)**

(b) With reasons state whether the following numbers are divisible by 6. **(4 marks)**

(i) 522

(ii) 1023

(c) Show whether 4012 is divisible by 8. **(3 marks)**

8. (a) A mother is three and a half times as old as her daughter now. Five years ago, the sum of their ages was equal to the mother's age four years from now. Taking the daughter's present age as d years, find the mother's actual age in 15 years. **(4 marks)**

(b) Annette has some money in two denominations only. Fifty shillings notes and twenty shilling coins. She has three times as many fifty shilling notes as twenty shilling coins. If altogether shehas sh. 3,400, find the number of fifty shilling notes and 20 shilling coin. **(3 marks)**

(c) The mean of five numbers is 20. The mean of the first three numbers is 16. The fifth number is greater than the fourth by 8. Find the fifth number. **(3 marks)**

9. Write the following numbers in terms of their prime factors **(10 marks)**

(i)	20	**(iii)**	216	**(v)**	2401
(ii)	128	**(iv)**	2025		

10. **(i)** Evaluate using squares and square root tables: $(0.072)^2 + \sqrt{4451}$ **(4 marks)**

(ii) Use factor method to find $\sqrt{784}$ **(3 marks)**

(iii) The surface area of a sphere of radius r is given by the formula $A=4\pi r^2$. What is the radius of a sphere whose surface area is $200cm^2$? **(3 marks)**

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MATHEMATICS QUESTION PAPER NO: 02

1. Evaluate $26 \div 2 + 3 \times 7 - 4 \times 5$ **3mks**

2. Evaluate $3\frac{1}{3} + \frac{6}{7}\ of\ 5\frac{4}{9}$ **3mks**

3. A watermelon vendor had 1500 watermelons. He sold 800 on the first day and 250 on the second day. He added 470 to the remaining stock on the third day.

a. How many watermelons did he have at the end? **2mks**

b. If he sold all the watermelons at an average cost of sh. 100. Each. How much money did he collect. **2mks**

4. **a**. State the place value and total value of the underlined digit in 47$\underline{3}$645 **2mks**

b. Write the number in (a) above in words. **1mk**

5. Round off 4 827 627.931 to the nearest

i. Ten thousand **2mks**

ii. Hundredths **2mks**

6. Test whether 712.008 is divisible by 11 **2mks**

7. Express as a fraction in its simplest form $0.6\dot{3}$ **3mks**

8. $^3/_5$ of the pupils in a school are boys. If there are 96 girls in the school, how many pupils are there in the school. **3mks**

9. Express 1728 as a products of its prime factors in power form. **3mks**

10. Arrange the following fractions in descending order

$^1/_2$, $^3/_5$, $^4/_7$, $^8/_9$, $^2/_3$ **3mks**

11. Evaluate $\frac{0.0195\ x\ 4.55}{13.0\ x\ 0.35}$ **3mks**

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12. Find the G.C.D of 32, 48, 36 **2mks**

13. Three alarms signals at interval of 40 minutes, 45 minutes and 60 minutes. If they signaled simultaneously at 6.30am, at what time will they next signal together. **3mks**

14. Doris office is on the twenty second floor in a storey building. On a certain day, she walked up five floors from her office to another office. She then took a lift to the third floor. Calculate the number of floors she went through while in the lift. **3mks**

15. Use tables to find

i. 423^2 **2mks**

ii. $\sqrt{0.067}$ **2mks**

16. Express the following number as stated.

i. 0.000000718 (in standard form) **2mks**

ii. 1.56×10^{-5} (in normal form) **2mks**

17. a. Carol borrowed sh. 150,000 she paid back sh. 25,000 in the first month. Sh 15,000 in the second month and sh. 34,000 in the third month. She paid the rest in equal amounts for two months. How much did she pay for each of the last two months. **4mks**

b. Find the difference in value between the largest number and the smallest number formed by digits 5, 2 and 8. **3mks**

c. The first four even numbers are written in descending order to form a number.

i. Write down the number **1mk**

ii. Find the total value of the thousands digit in the number. **2mks**

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18. a. Express the following numbers as products of prime factors using power notation.

(i) 5148 **2mks**

(ii) 6084 **2mks**

b. Hence leaving your answers in prime factor form.

(i) Evaluate $\frac{(5148)^2}{\sqrt{6084}}$ **4mks**

(ii) Find G.C.D and L.C.M of 5148 and 6084. **2mks**

19. **a.** Three metal rods of lengths 234cm, 270cm and 324cm were cut into shorter pieces, all of the same length to make window grills. Calculate the length of the longest piece that can be cut from each of the rods and hence the number of pieces that can be obtained from the rods. **4mks**

b. A metal dealer had a piece of wire which he intended to cut into pieces of 8m, 15m or 21m. determine the minimum length of the wire that would give an exact number of pieces of each length. **3mks**

c. The G.C.D of two numbers is 12 and their L.C.M is 240. If one of the numbers is 60. Find the other number. **3mks**

20. a. simplify **3mks**

$1^1/_9$ x $^3/_8$ of $2^2/_5$

b. Mr. Kamau sold two thirds of his fruits on Monday, and ¾ of the remainder on Tuesday. He had then 60 left. How many fruits had she at first. **3mks**

c. $\frac{\frac{2}{3} of\ 5\frac{2}{5}-2\frac{3}{10}}{\frac{3}{5}\div 4\frac{1}{2}+1\frac{3}{5}}$ **4mks**

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21. a) Find the value of $(25 + 36)^2 - 625 \div 25 \times 4$ **3mks**

b) Evaluate $\frac{-8 \ x \ +2 \ + \ -11}{+18 \ \div \ -2 \ x \ +3}$ **3mks**

c) Use number line to evaluate.

i) -5 + 3 **2mks**

ii) (-7) + (-1) **2mks**

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MATHEMATICS QUESTION PAPER NO: 03

Attempt all the questions in the spaces provided.

1. Work out: **(4 mks)**

(a) (-7) + (-4) =

(b) (-20) ÷ (+4) =

(c) (+18) x (-2) =

(d) (+10) – (+7) =

2. Use square and square root tables to evaluate: **(3 mks)**

$$3.474^2 + \sqrt{1287}$$

3. Arrange the following fractions in descending order. **(3 mks)**

2/3, 8/9, 7/12, 5/7

4. Express the following recurring decimal into a fraction.

(i) $0.\dot{3}7\dot{5}$ (3 mks) (ii) $0.\dot{6}$ **(2 mks)**

5. A bus service number 4 leaves a terminus every 20 minutes. Service bus 8 and 3 leaves ever 25 and 30 minutes respectively. If all the three services leave together at 6.00 a.m, at what other times during day time do they leave together? **(4 mks)**

6. A man spends 1/3 of his salary on rent and 2/5 of the remainder on food. He saves the rest of his Income. If his savings amount to sh 4,200, find his income. **(3 mks)**

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7. Simplify the following expressions:- **(2 mks)**

(a) $2a + 3b + 4a - b$

(b) $\dfrac{ax - ay + bx - by}{a + b}$ **(2 mks)**

8. Work out:

$1\frac{1}{4} + 2\frac{3}{5} - \frac{4}{5}$ of $3\frac{1}{3}$ **(3 mks)**

9. Test whether the following numbers are divisible by 11. **(6 mks)**

8260439

8151

4132

10. Find the square root of each of the following using factor method.

(a) 1764 **(2 mks)**

(b) 625 **(2 mks)**

(c) 441 **(2 mks)**

11. Without using a calculator, evaluate the following leaving your answer as a simple fraction.
. **(3 mks)**

(a) $\dfrac{(-4)(-2)+(-12)+(+3)}{-9-(15)} + \dfrac{-20+(+4)+-6)}{46-(8+2)-2}$

(b) $\dfrac{\frac{5}{6}\ of\ (4\frac{1}{3} - 3\frac{5}{6})}{\frac{5}{12}\ x\ \frac{3}{25} + 1\frac{5}{9} \div 2\frac{1}{3}}$ **(3 mks)**

. . .

12. Express $1.93 + 0.25$ as a single fraction. **(3 mks)**

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13. Mr. Kimanthi keeps Turkeys and chicken. The number of turkeys exceeds the number of chickens by 6. During the outbreak of a disease, ¼ of the chicken and 1/3 of the turkeys died. If he lost total of 30 birds, how many birds did he have altogether? **(4 mks)**

14. Four farmers took their goats to the market. Salim had x goats, Mohammed two more goats than Salim and Koech had 3 times as many goats as Mohammed whereas Okoth had 10 goats less than both Mohammed and Koech.

(a) Write a simplified expression with one variable, representing the total number of goats. **(3 mks)**

(b) Three butchers bought all the goats and shared them equally. If each butcher got 17 goats, how many did Okoth sell to the butchers? **(3 mks)**

15. Melisa ate 1/5 of her birthday cake and gave 2/3 of the remainder to her friends. The rest was kept for her two sisters who were absent. If the two sisters shared their piece equally, what fraction of cake did each sister eat? **(3 mks)**

16. A company registered a gross profit of five billion, three hundred and sixty eight million, five hundred and seventy nine thousand and seventy nine shillings. Round off this figure to the nearest hundred millions and express it in standard form. **(3 mks)**

17. Simplify the following algebraic equations: **(2 mks)**

(a) $\frac{17x^3y^2}{13a^2b^2} \times \frac{91a^2b^3}{102x^2y^3}$

(b) $\frac{7x - 7xy}{7 - 7y}$ **(2 mks)**

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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 04

SECTION I (50 Marks)
Answer all the questions in the spaces provided.

1. A farm worker digs a rectangular farm which is 35 metres by 45 metres. If should be paid Sh. 2 000 per hectare, calculate how much he should be paid. **(3 marks)**

2. Find the least number of sweets that can be packed into polythene bags which contain either 9 or 15 or 20 or 24 sweets with none left over. **(3 mrks)**

3. Evaluate; **(3 marks)**

$$14 \div \frac{1}{3} \; of \; 5\frac{1}{4} + 3\frac{3}{4} \times 1\frac{1}{3}$$

4. A water pipe has an external radius of 4.9 cm and internal radius of 3.5 cm. Find the mass of 20 m of the pipe if it is made of material of density $10\ gcm^{-3}$. **(3 marks)**

5. Simplify the expression

$\frac{2}{3}(3x - 2) - ¾\ (2x - 2)$ **(3 marks)**

6. If $f = \frac{uv}{u+v}$, find f correct to 3 d.p, given that $u = 0.5$ and $v = 0.8$. **(3 marks)**

7. A square has an area of $36\ cm^2$. If the perimeter of the square increases by 30%, calculate the new perimeter. **(3 marks)**

8. A man is x years old now. In 10 years' time, he will be twice as old as he was 5 years ago. How old will he be in 10 years' time? **(3 marks)**

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9. A Kenyan tourist left America through South Africa. While in South Africa, she bought a wrist watch worth 24 dollars. Given that 1 $South\ African\ rand = 0.15\ dollars$ and 1 $rand = 11.24\ kenya\ shillings$, find the value of the watch in;

a) South African rands**.** **(1 mark)**

b) Kenya shillings. **(2 marks)**

10. A solid block in the shape of a cylinder has a height of 14 cm and weighs 22 kg. If it is made of material of density $5\ gcm^{-3}$, find the radius of the cylinder. Take $\pi = \frac{22}{7}$ **(3 marks)**

11. Evaluate $16^2 \times 25^2$ by factorization leaving your answer as a product of prime factors. **(3 marks)**

12. An arc PQ of a circle of radius 15 cm subtends an angle of $160°$ at the centre of the circle. Find the length of the arc PQ correct to 2 significant figures.(Take $\pi = 3.142$). **(4 marks)**

13. Evaluate;

a) $56 \div -8 \times 7 + 5 - 2$ **(2 marks)**

b) $-(-32) \div -4$ **(2 marks)**

14. Express the following recurring decimal as a fraction $0.\dot{1}45\dot{3}$ **(3 marks)**

15. A church service lasted 2 hours 35 minutes. What time did it start if it ended at 12.15 p.m? Express your answer in 24 – clock system**.** **(3 marks)**

16. Use tables of squares and square roots to evaluate; **(3 marks)**

$$\mathbf{11.98^2 + \sqrt{231.5}}$$

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SECTION II (50 Marks)

Answer all question in the spaces provided.

17.a) Half the sum of the present ages of a mother and her daughter is equal to the difference between their ages now. In ten years time the mother's age will be exactly twice the daughter's age. Calculate their present ages. **(3 marks)**

b) In fourteen years' time, a mother will be twice as old as her son. Four years ago, the sum of their ages was 30 years. Find how old the mother was, when the son was born. **(4 marks)**

c) Khadija and Kagendo bought the same types of pens and exercise books from the same shop. Khadija bought 2 pens and 3 exercise books for Sh 78. Kagendo bought 3 pens and 4 exercise books for Sh 108.Calculate the cost of each item. **(3 marks)**

18. The inside of a rectangular hall measures 15 m long, 9 m wide and 3 m high. There are two doors each measuring 2 m by 2.2 m and six windows each measuring 1.5 m by 1.5 m. The walls are to be painted.

a) Calculate the total area of the walls to be painted. **(4 marks)**

b) To paint an area of $2.5\ m^2$ requires one litre. If the paint is sold in 4 litre tins, determine the number of tins of paint that should be bought. **(3 marks)**

c) The cost of a 4 litre tin of paint is Sh. 1 700. The painter is paid fixed charge of Ksh. 2 000 and Ksh. 30 per square metre of the wall painted. Calculate the total cost of painting the walls. **(3 marks)**

19. A cylindrical container of diameter 14 cm and depth 20 cm is half full of juice.

a) Calculate the volume of juice in the container in cubic metres. **(3 marks)**

b) The juice is to fill a rectangular tank whose dimensions are $1.5\ m\ by\ 1\ m\ by\ 0.5\ m$. Calculate the number of cylindrical containers required to fill the tank to the nearest whole number. **(3 marks)**

c) A cube has a surface area of $216\ cm^3$

i. Calculate the volume of the cube in cubic metres. **(3 marks)**

ii. Find the capacity of the cube in litres. **(1 mark)**

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20. Jane is a sales executive earning a salary of Ksh. 20,000 and a commission of 8% for the sales in excess of Ksh 100,000. If in January 2010 she earned a total of Ksh.48, 000 in salaries and commissions.

a) Determine the amount of sales she made in that month **(4 marks)**

b) If the total sales in the month of February and March increased by 18% and then dropped by 25% respectively. Calculate

i. Jane's commission in the month of February **(3 marks)**

ii. Her total earning in the month of March **(3 marks)**

21. In order to start a business, three businessmen Macharia, Omondi and Kimtai contributed Sh 25 000, Sh 35 000 and Sh 45 000 respectively as business capital. They also had to pay Sh 15 000 more as rental fee for business premises. The rental fee was shared equally among the partners. The three partners agreed to put 25% of the annual profits back in the business and share the rest in the ratio of their contributions. During the first year the business realized Sh 128 000 in gross profits.

a) Find the ratio in which they contributed business capital and rental fees. **(2 marks)**

b) Calculate;

i. The profits shared**.** **(2 marks)**

ii. Each partner's share of the profits. **(6 marks)**

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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 05

SECTION I (30 MARKS)
Answer all the questions from this section

1. Write the following numbers in figures

(a) Ten thousands and ten **(1 mark)**

(b) One hundred and two billion, three hundred and sixty five million, four hundred and seventy eight thousands and one **(1 mark)**

2. All prime numbers less than ten are arranged in descending order to form a number.

(a) Write down the number formed. **(1 mark)**

(b) State the total value of the second digit in the number formed in (a) above **(1 mark)**

(3 Express 7056 as a product of its prime factors leaving your answer in power form. **(3 marks)**

4. Three bells ring at an interval of 9 minutes, 15 minutes and 21 minutes. The bells will next ring together at 11.00pm. Find the time the bells had last rang together? **(3marks)**

5. Three tanks are capable of holding 108 litres, 168 litres and 180 litres of milk. Determine the capacity of the greatest vessel which can be used to fill each one of them an exact number of times. **(3 marks)**

6. Test whether 1 478 019 is divisible by 11. **(2 marks)**

7. Evaluate. **(3 marks)**

$$\frac{-16 \div 4 + 6 \times 14 - 2 \times -5}{84 \div 14 \times 3}$$

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8. Evaluate **(2 marks)**

$\frac{1}{3} of \left(\frac{5}{6} - \frac{1}{4}\right) \div \frac{1}{12}$

9. Express the recurring decimal below as a fraction in simplest form. **(3 marks)**

$0.2\dot{3}$

10. Evaluate using tables of square roots **(3 marks)**

$\sqrt{0.792}$

11. Without using mathematical tables or calculator evaluate **(4 marks)**

$$\sqrt{\frac{0.0625 \times 2.56}{0.25 \times 0.08 \times 0.5}}$$

SECTION II (20 MARKS)

Answer ALL the questions from this section

12. Kinyua spent 1/4 of his net January salary on school fees. He spent 1/4 of the remainder on electricity and water bills. He spent 1/9 of what remained on transport. If he finally has sh.8400, calculate

a) His total January salary. **(4 marks)**

b) Money spent on school fees. **(2 marks)**

c) Money spent on transport. **(2 marks)**

d) Money spent on electricity and water bills. **(2 marks)**

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13. A bookstore has 30 816 exercise books which were packed in cartons. Each carton contained 24 exercise books. The mass of an empty carton was 2kg and that of a full carton is 12kg.

(a) How many cartons ware there? **(2 marks)**

(b) What was the total mass of the empty cartons? **(2 marks)**

(c) What was the total mass of books in one carton? **(2 marks)**

(d) What was the total mass of all the exercise books? **(2 marks)**

(e) What was the mass of one exercise book in kg to 2 decimal places? **(2 marks)**

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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 06

Instructions.
Answer all questions in the spaces provided.

1. Express the following numbers in words. **(2mks)**

a) 14633001

b) 30000010

2. A matatu charges sh. 120 as fare from town A to town B. It has a capacity of 18 passangers. How much money does it make in one day covering 10 trips with full capacity. **(3mks)**

3. Use the divisibility test of 11 to check whether the following numbers are divisible by 11. **(2mks)**

a) 1048564

b) 1120043

4. Use Bodmas to evaluate. **(3mks)**

$$\frac{\frac{1}{2} \quad \left[\frac{3}{5} + \frac{1}{4} \ \left(\frac{7}{3} - \frac{3}{7} \right) \text{ of } 1\frac{1}{2} \div 5 \right]}{3\frac{5}{7}}$$

5. Victoria spent ¼ of his net January salary on school fees. She spent ¼ of the remainder on electricity and water bills. She then spent $\frac{1}{9}$ of what was left on transport. If she finally had sh. 3400. What was her net January salary. **(3mks)**

6. Using mathematical tables evaluate.

a) 7340^2 **(1mk)**

b) $14.5^2 + 0.714^2$ **(2mks)**

7. Given that a:b = 1:2 and b:c = 3:4. Find a:b:c **(1mk**

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8. Three bells ring at intervals 30mins, 35mins and 50 mins. If they ring together at 11:25 p.m on Monday at what time and day will they next ring together? **(3mks)**

9. The length of minute hand of a clock is 3.5cm. Find the angle it turns through if it sweeps an area of 4.8cm^2. (take $\pi = {}^{22}/_{7}$) **(3mks)**

10. Express the following as a single fraction.

a) $\frac{x-1}{2} + \frac{x+2}{4} + \frac{x}{5}$ **(3mks)**

b) $\frac{ax - ay + bx - by}{a+b}$ **(2mks)**

11. Fifteen tractors each working eight hours a day takes eight days to plough a piece of land. How long would it take 24 tractors each working 10 hours a day to plough the same piece of land. **(3mks)**

12. Use factor tree to decompose 256 into prime factors. **(2mks)**

13. Juma, Ali and Hassan share the profit of their business in the ratios 3:7:9 respectively. If Juma receives sh. 6000. How much profit did the business yield. **(3mks)**

14. Use bodmas to evaluate: **(4mks)**

$$\frac{\mathbf{5x6-76\div4+27\div3}}{\mathbf{4-2x4+36\div4}}$$

15. A Kenyan bank buys and sells foreign currency as shown in the table below.

	Buying (ksh)	**Selling (ksh)**
1 us dollar	95.34	95.87
1 uk pound	124.65	125.13

A tourist arrived in Kenya with 15000 pounds which he converted in kshs.

a. How much kshs did he receive? **(2mks)**

b. He later spend sh. 125340 while in Kenya. He converted the remainder in dollars. How many dollars did he receive? **(3mks)**

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16. A metallic cuboid measuring 16cm by 8cm by 4cm was melted. The material was used to make a cube. What is the length of the cube. **(3mks)**

17. Find a if $a^2 = b^2 + c^2$ given that b=2 c=3.5. **(2mks)**

18. Below is a travel timetable for a vehicle operating between towns A and D 70 km apart.

Town	**Arrival**	**Departure**
A		10.10 am
B	10.30am	10.40 am
C	11.00 am	11.05 am
D	11.20am	

a. At what time does the vehicle depart from town A? **(1mk)**
b. How long does it take to travel from town A to town B? **(1mk)**
c. For how long does it stay in town B? **(1mk)**
d. At what time does it arrive in town D? **(1mk)**
e. What is the average speed of the whole journey? **(3mks)**
f. A football match lasts 90 minutes with a break of 15 minutes at half time. If a referee allows five minutes extra for injuries and stoppages, what time does a match which kicks off at 4:30 pm end? **(3mks)**

19. A rectangular plot measures 100m by 200m. Determine:
a. Its perimeter in km. **(2mks)**
b. Its area in m^2. **(2mks)**
c. Its area in ha. **(2mks)**
d. Square tiles of 100cm by 100cm are used to cover the floor.
How many tiles are used? **(2mks)**
e. If the cost of 1 tile is sh. 25. How much money will be spent on tiles. **(2mks)**

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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 07

SECTION A (50 MARKS)

1. Write 5890027649.96 in words. **(1 mark)**

2. Simplify without using a calculator, giving your answer as a fraction in its simplest form. **(3 marks)**

$$\frac{\frac{2}{3} \div \frac{4}{3}}{\frac{1}{3} + \frac{5}{6}} \div \frac{1}{4}$$

3. If the repeating decimal 0.151515…. is expressed as a ration of whole number $^{a}/_{b}$ in the lowest terms, what is the value of $b - a^2$ **(4 marks)**

4. The table below shows the current exchange rate at a Forex Bureu on 1st March 2013

Currency	Buying rate (Kshs)	Selling rate (Kshs)
Euro	93.50	98.40
Sterling pound	132. 40	139.80
Dollar	72. 35	74.95

A business man visited Kenya, he had 36,590 Euros. He converted all the money to Kenya shillings and spent Kshs. 52,000 on accommodation and another shillings 80,000 on buying artifacts. He then flew to America where he converted the balance to US dollars. How much money did he receive? **(3 marks)**

5. Use tables of square and square roots to find the value of x if

$x = \sqrt{0.0236^2 + 0.1049^2}$ **(4 marks)**

6. One interior angle of a certain polygon is 84^0. If each of the other angles is 147^0, how many sides does this polygon have? **(3 marks)**

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7. 3g of metal A of density 2.7g/cm^3 is mixed with 2.4dm^3 of metal B of density 4.8g/cm^3. Determine the density of the mixture. **(4 marks)**

8. Korir is now four times as old as his daughter and six times as old as his son. Twelve years from now, the sum of the ages of his daughter and son will differ from his age by 9 years. Determine present ages. **(3 marks)**

9. Show that 8260439 is exactly divisible by 11, using test of divisibility**.** **(2 marks)**

10. John bought 3 books and 4 pens while Peter bought 4 books and 5 pens of the same type if Peter paid sh. 525 while John paid sh. 125 less than what Peter paid. Calculate the cost of each item. **(3 marks)**

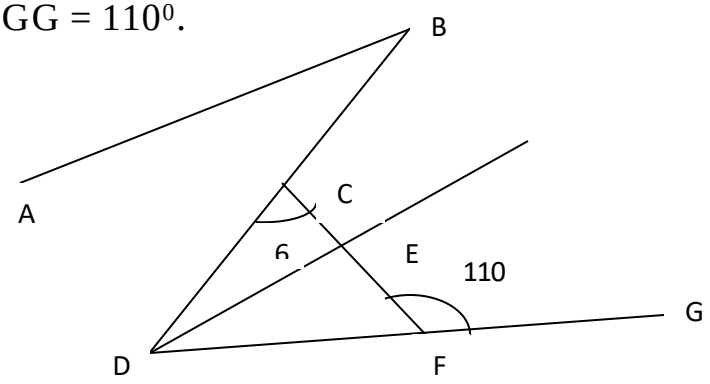
11. A square room is covered by a number of whole rectangular slabs of sides 60cm by 42cm. Calculate the least possible area of the room in square metres **(4 marks)**

12. Two numbers are in the ratio of 5:7. When 15 is added to each number, the ratio changes to 5: 6 find the two numbers **(3 marks)**

13. A bus service number 4 leaves a terminus every 15 minutes. Services 8 and 3 leaves every 20 and 30 minutes respectively. If all the three services leave together at 06.00 am, at what other times during day time do they leave together? **(3 marks)**

14. In a trapezium of area 40cm^2 the ratio of the lengths of the parallel sides is 2: 3. Find the lengths of the parallel sides if they are 5cm apart. **(3 marks)**

15. In the figure below AB is parallel to DE. DE bisects angle BDG, angle DCF = 60^0 angle CGG = 110^0.



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Find, give reasons for your answers

a) <CDF **(2 marks)**

b) <ABD **(2 marks)**

16. A watch which loses a half –minute every hour was set to read the correct time at 0545h on Monday. Determine the time in the 12 hour system, the watch will show on the following Friday at 1945h. **(3 marks)**

SECTION B (50 MARKS)

17. The ratio of Juma's and Akinyi's earnigs was 5:3 Jumas earnings rose to sh.8400 after an increase of 12%.

(a) Calculate the percentage increase in Akinyi's earnings given that the sum of their new earnings s shs. 14,100. **(6mks)**

(b) Juma and Akinyi contributed all the new earnings to buy maize at 1175 per bag. The maize was then sold at shs.1762.50. The two shared the money from the sales of the maize in ratio of their contributions. Calculate the amount that Akinyi got. **(4mks)**

18. (a) Find the surface area of a rectangular glass block whose volume is $1584cm^3$, if it is 72cm long and 40cm wide. **(4 marks)**

(b) The diameter of a cylindrical container, closed at both ends is 0.28m and its height is 14m. Find its

(i) surface area **(4 marks)**

(ii) volume **(2 marks)**

19. Four boats P, Q, R and S are anchored on a bay such that Q is 200m on a bearing of 065^0 from P. R is 300m on a bearing of 120^0 from Q. S is 150m due west of R.

a. Using a scale of 1cm to represent 50m, draw an accurate scale drawing representing the relative position of P, Q, R and S. **(4marks)**

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b. Using the scale drawing find the distance between

i. P and S **(2marks)**

ii. P and R **(2marks)**

c. Determine the compass bearing of P and R. **(2marks)**

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20. The table below shows the amount of money charged for hiring a car for a given distance.

Distance in km	10	20	30	40	50
Charges (Ksh)	2500	4000	5500	7000	8500

(b) On the grid provided draw a graph of charges and the distance covered

(PROVIDEA GRAPH PAPER)

(c) Use your graph above to find

(i) The standing charge

(ii) How much money is charged for covering a distance of 24km, 35km and 46km.

(iii) The distance covered if the amount charged is shs. 3,000 and shs. 8,000.

21. The cost of making a table consists of transport, labour and raw material in the ratio 4:2:6 respectively.

During an inflation year the transport cost increased by 6%, the labour by 9% and raw materials by 20%.

a) Find the percentage increase in producing a table. **(6 marks)**

b) What was the old price of a table if the new price is Kshs. 680? **(2 marks)**

c) How much would Saum have saved if she buys a dozen of tables at the old price? **(2 marks)**

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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 08

SECTION I

1. Without using a calculator evaluate $\dfrac{2\frac{1}{2}+\frac{1}{5}\div\frac{5}{6}\ of\ 2\frac{2}{5}}{1\frac{7}{10}}$ leaving the answer as a fraction in its simplest form **(3 marks)**

2. A farmer distributed his bags of cabbages as follows:
A certain hospital received a quarter of the total number of bags. A nearby school received half of the remainder. A green grocer received a third of what the school received. What remained was six more than what the green grocer received. How many bags of cabbages did the farmer have? **(3mks)**

3. Simplify the expression
$5a - 4b - 2\,[a-(2b+c)]$ **(2 marks)**

4. Evaluate: $\dfrac{-12\div(-3)\times4-(-20)}{-6\times6\div3+(-6)}$ **(3 marks)**

5. All prime numbers less than ten are arranged in descending order to form a number.
(a) Write down the number formed **(1 mark)**

(b) State the total value of the second digit in the number formed in (a) above **(2 mks)**

6. A fruit vendor bought 1948 oranges on a Thursday and sold 750 of them on the same day. On Friday, he sold 240 more oranges than on Thursday. On Saturday he bought 560 more oranges. Later that day, he sold all the oranges he had at a price of Ksh 8 each.
Calculate the amount of money the vendor obtained from the sales of Saturday. **(4 marks)**

7. A rectangle of side 48cm by 60cm is divided into squares of side X cm. Find the greatest value of X and find the area of the square. **(3mks)**

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8. Three bells rang at intervals of 9minutes, 15 minutes and 21minutes. The bells will ring together at 11.00p.m.Find the time the bells had last rang together **(3 marks)**

9. Three businessmen Makokha, Njau and Odhiambo contributed a total amount of sh 120,000 to start a business. The ratio of the contributions of Makokha and Njau was 2:3 and that of Njau to Odhiambo was 2:5. How much did Odhiambo contribute? **(4 marks)**

10. Two pairs of trousers and three shirts cost a total of 390. Five such pairs of trousers and two shirts cost a total of sh.810. Find the price of a pair of trousers and a shirt. **(3marks)**

11. Solve the equation $\frac{1}{4x} = \frac{5}{6x}$ **- 7** **(3 marks)**

12. Without using mathematical tables evaluate **(3 marks)**

$$\frac{0.18 \times 4}{\sqrt{3.24 \times 4}}$$

13. A number n is such that when it is divided by 27, 30,or 45, the remainder is always 3. Find the smallest value of n. **(3mks)**

14.(a) The prime numbers between 30 and 40 are written in ascending order to form a number. Write down the number. **(1mk)**

(b) A second number is formed by writing all square numbers between 40 and 70 in the ascending order. Find the difference between this number and the one formed in (a) above giving your answer to the nearest tens. **(2mks)**

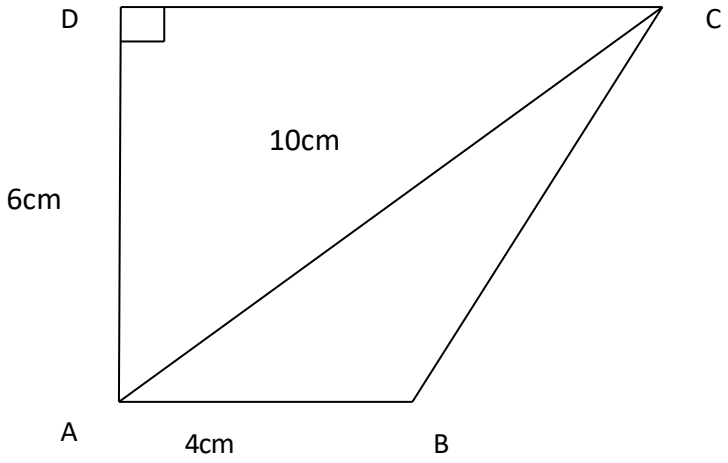
15. A watch which looses a half a minute every hour was set read the correct time at 0445hr on Monday. Determine in twelve hour system the time the watch will show on Friday at 1845hr the same week. **3mks**

16. Arrange the following fractions in ascending order. $^2/_3$, $^7/_{12}$, $^5/_8$, **(3mks)**

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SECTION II

17. In the figure below AB=4cm, AD=6cm and AC=10cm find:

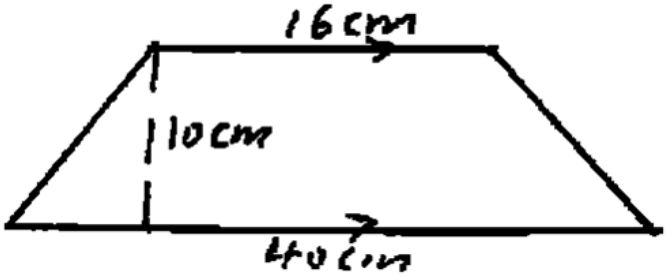


a. the area of triangle ABC. **(3mks)**

b. the length of the perpendicular from B to AC. **(4mks)**

c. the length of DC if the area of triangle ADC is equal to $24cm^2$ **(3mks)**

18. (a) Find the area of the following figure. **(2mks)**



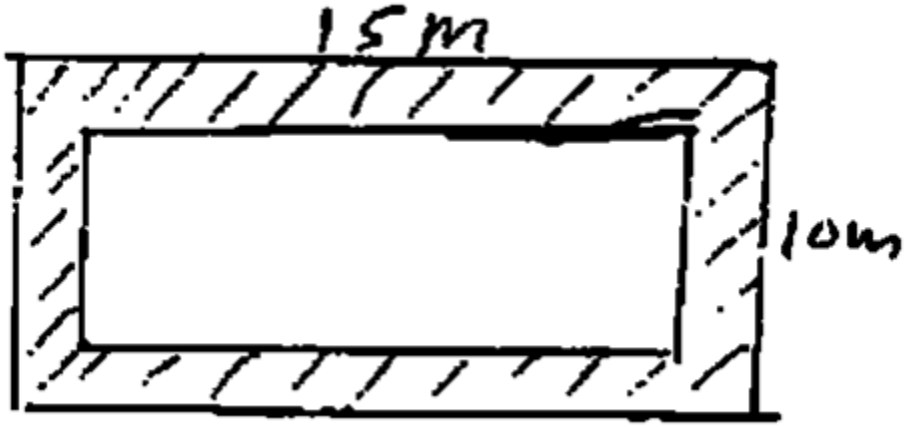
b) A piece of wire is in the shape of an arc of a circle, radius 10.5cm.
The angle at the centre is 150^o

i. Calculate the length of the wire. **(2mks)**

ii. If the wire is bent to form a complete circle, find its radius. **(3mks)**

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c) A flower garden measuring 10m by 15m is surrounded by a path 2m wide, as shown by the figure below. Find the area of the path. **(3mks)**



19. Two business partners Nzau and Masese contributed sh.112,000 and sh 128,000 respectively, to start a business. They agree to share their profits as follows;
30% to be shared equally
30% to be shared in the ratio of their contributions
40% to be retained for the running of the business.
If their total profit for the year 1989 was sh.86400 calculate

a) **(i)** The amount shared equally. **(2marks)**

(ii) simplified ratio of contribution **(2mks)**

(iii) The amount retained for running the business **(2marks)**

b) The amount received by each partner. **(4 mks)**

20. (a) Three litres of water (density 1g/cm3) is added to 12 litres of alcohol (density 0.8g/cm3)
Calculate:

(i) The mass of water in grammes(g) **(2mks)**

(ii) The mass of alcohol in g. **(1mks)**

(iii) The density of the mixture in g/cm^3 **(2mks)**

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b .A right angled triangular prism has length 3m, breadth 2m and height 2.5m. If the mass of the prism is 3.4kg,.Calculate.

(i) Area of the cross-section in m2 **(2 mks)**

(ii) Volume of the prism in m^3 **(1mk)**

. **(iii)** The density of the prism in kg/m^3 **(2mks)**

21. **a)**Express the following decimal as a fraction in its simplest form

0.185 **(2mks)**

b. Evaluate the following $\frac{3\frac{1}{2}+2\frac{3}{8}}{4\frac{1}{3}-2\frac{5}{12}}$ **(3mks)**

b. Carol borrowed sh. 150000. She paid back sh.25000 in the first month, sh. 15000 in the second month and sh. 34000 in the third month. She paid the rest in equal amounts for two months. How much did she for each of the last two months?Calculate:

(i) The amount she paid back in the first 3 months. **(2mks)**

(ii)How much did she pay for each of the last two months. **(3mks)**

22. Use mathematical tables to evaluate the following

a) 8.457^2 **(2mks)**

b) 567.4^2 **(2mks)**

c) $\sqrt{456.7}$ **(3mks)**

d) $\sqrt{0.7893}$ **(3mks)**

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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 09

SECTION A 50 MARKS
ANSWER ALL QUESTIONS IN THIS SECTION

1. Ayub travelled part of the journey by train and the rest of the journey by bus. The total fare was Ksh 4000. On return, the fare of the bus was hiked by a half of what he had paid and the total fare of the return journey hiked to Ksh 4800. Find the train fare. **(3mks).**

2. When 19346 is divided by a number, the quotient is 841 and the remainder is 3. What is the number? **(3mks).**

3. A square toilet is covered by a number of whole rectangular tiles of sides 60cm by 48cm. Calculate the least possible area of the room in square metres. **(3mks).**

4. Evaluate $\sqrt{\frac{1470^2}{7056}}$ using prime factors and leave your answer in prime factors form. **(4mks).**

5. Evaluate $\dfrac{{}^1/_2 \text{ of } 3{}^1/_2 + 1{}^1/_2(2{}^1/_2 - {}^2/_3)}{{}^3/_4 \text{ of } 2\,{}^1/_2 \div {}^1/_2}$ **(4mks).**

6. Use number line to solve $6 - (-4)$ **(2mks).**

7. Given that X= 4 and y = -6, evaluate the following. **(3mks).**

$$\mathbf{6x - 3xy}$$

8. Simplify $\dfrac{\mathbf{a+b}}{\mathbf{2}} - \dfrac{\mathbf{2a-b}}{\mathbf{3}}$ **(3mks)**

9. The ratio of boys and girls in a mixed school is 2:3. If there are 160 boys, how many girls are there? **(3mks).**

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10. Find the ratio a:c, given that;

a:b = 7: 1, b:d = 1: 2, d: c = 2: e **(4mks).**

11. The perimeter of a semicircular protractor is 14.28cm. Find its radius. **3mks)**

12. The area of the sector of a circle is 38.5cm^2. Find the radius of the circle if the angle subtended at the centre is 90^0. (Take $\pi = {}^{22}/_{7}$). **(3mks).**

13. A cylindrical column of fat has diameter 17.5cm and height 10cm. Calculate the density in g/cm^3 of fat if the column has a mass of 2kg. **(3mks)**

14. Express the following measurements in 3 s.f **(3mks)**

a) 36.7892

b) 0.09854

c) 345204

15. Find the square root of 0.001952 using mathematical table. **(3mks)**

16. Arrange the following numbers in an ascending order. **(3mks)**

$2\,{}^{7}/_{8}$, ${}^{14}/_{5}$, 3, ${}^{17}/_{9}$

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SECTION B 50 MARKS

17. A rectangle measures 18cm by 12cm.

(a) If each dimension is reduced by 2cm, by what percentage is:

i). The perimeter reduced. **(3mks)**

ii). The area of the rectangle reduced. **(3mks)**

(b) If each dimension is reduced by 2%, by what percentage is the area of the rectangle reduced. **(4mks).**

18. **(a)** Study the equations below and complete the tables.

7x + 2y = 16

2x-y = 3

x	0	1	2
y			

x	0	2	4
y			

(b) On the same axis, draw the graphs of $y = 2x - 3$ and $y = 8 - \frac{7}{2}x$ **(4mks)**

(c) Use the graph to solve the simultaneous equations; **(2mks)**

$y = 2x - 3$

$y = 8 - \frac{7}{2}x$

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19. **(a)** Draw triangle ABC in which AB = 11cm, AC = 8cm and BC = 5.6cm. **(2mks)**

(b) Construct the bisectors of any two angles of the triangle and let the bisectors meet at R. **(2mks)**

(c) Draw the perpendicular from R to AB so that it cuts AB at M. **(2mks)**

(d) With centre R and the radius RM, Draw a circle. **(2mks)**

(e) Calculate the area of the circle. **(2mks)**

20. A carpenter constructed a closed wooden box with internal measurements 1.5m long by 0.8m wide and 0.4m high. The wood used in constructing the box was 1.0cm thick and had a density of 0.6 g/cm^3.

a) Determine the:

i). Volume in cm^3 of the wood used in constructing the box. **(3mks)**

ii). Mass of the box in kg correct to 1dp. **(2mks)**

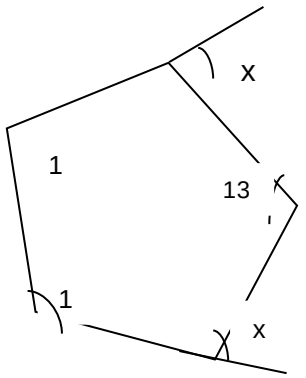
b) Identical cylindrical tins of diameter 10cm and height 20cm with a mass of 120g each were packed in the box. Calculate;

i). Maximum number of tins that were packed in the box. **(3mks)**

ii). Total mass of the box with the tins. **(2mks)**

21. Find the size of the angles marked with letters.

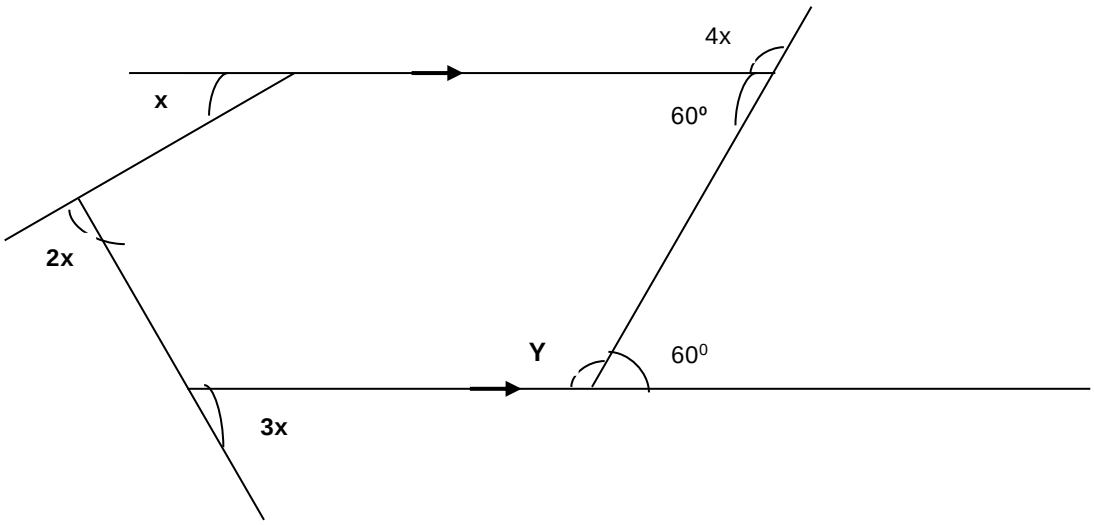
(a)



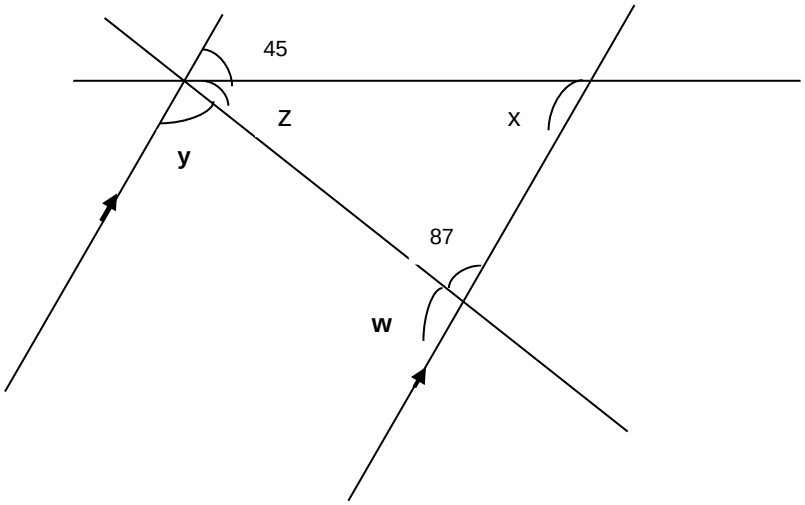
(1mk)

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(b) **(5mks)**



(c) **(4mks)**



22. **(a)** The GCD of two numbers and their LCM is 360. If one of the numbers is 72, what is the other number? **(3mks).**

(b) When a number **u** is divided by 34 or 24 or 40, the remainder is always 5. Find the least value of **u.** **(3mks)**

(c) Three bells ring at intervals of 12minutes, 15minutes and 18minutes. If they sound together at 10:00 am;

i). After how long will they next sound together? **(3mks).**

ii). What time will this be? **(1mks)**

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FORM ONE HOLIDAYS KEYNOTE
MATHEMATICS QUESTION PAPER NO: 10

SECTION A (50 MARKS)

1. Simplify without using a calculator, giving your answer as a fraction in its simplest form.

$$\frac{2\,1/3 - 1\,2/3 \div 5/9}{4/7 \text{ of } 2\,1/3 - 2\,2/7}$$ **(3marks)**

2.

Evaluate without tables or calculator.

$$\frac{-12 \div (-3) \times 4 - (-20)}{-6 \times 6 \div 3 + -6}$$ **(3 marks)**

4. An airbus left town N at 1945hrs and arrived in town L at 0320hrs. It stayed for $1\frac{1}{2}$ hours for rest and refreshment of passengers and crew. It then headed for town W and took $1\frac{1}{2}$ hours.

(a) How long did the journey from town N to town L take in hours and minutes**?** **(2 marks)**

(b) At what time did it arrive in town W? **(1 mark)**

5. Mzee is three times as old as his son now. If ten years ago the sun of their ages was 44, how old was Mzee when his son was born? **(3 marks)**

6. Given that $\frac{2x+3y}{3x+4y} = 5$, find the ratio $y : x$. **(3 marks)**

7. Express $2.8\dot{3}$ as improper fraction. **(3 marks)**

8. An Italian tourist, on arrival in Kenya, converted 6000 Euros into Kenya shillings. During her three day's stay the country, she spent Kshs 260,000. She converted the remaining amount into US dollars. Using the exchange rates table below calculate how many US dollars she got?

	Buying	Selling
1 US dollar $	96.20	96.90
1 Euro C	112.32	112.83

(3 marks)

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9. Find the area in hectares of a field book measurement is recorded in metres as follows.
(3 marks)

	D	
	170	
To E 50	**140**	
	110	**60 to C**
To F 80	**100**	
	30	**50 to B**
	A	

10. The perimeter of a triangular field is 120 m. Two of the sides are 21m and 40m. Calculate the largest angle of the field. **(4 marks)**

11. A paint dealer mixes three types of paint A, B and C in the ratios A: B =3:4 and B:C=1:2. The mixture is to contain 168litres of C.

a) Find the ratio A: B:C **(2 marks)**

b) Find the required number of litres of B. **(1 marks)**

12. Annette has some money in two denominations only. Fifty shillings notes and twenty shilling coins. She has three times as many fifty shilling notes as twenty shilling coins. If altogether she has sh. 3,400, find the number of fifty shilling notes and 20-shilling coin. **(3 marks)**

13. The mean of five numbers is 20. The mean of the first three numbers is 16. The fifth number is greater than the fourth by 8. Find the fifth number. **(3 marks)**

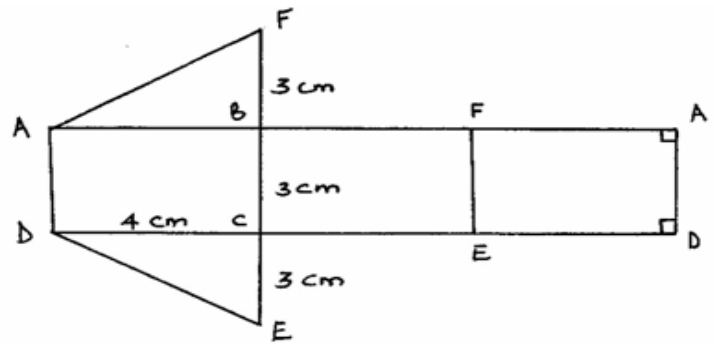
14. A farmer has a piece of land measuring 840m by 396m. He divides it into square plots of equal size. Find the maximum area of one plot. **(3 marks)**

15. Each interior angle of a regular polygon is 120^0 larger than the exterior angle. How many sides have the polygon? **(3 marks)**

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16. A photograph is reduced in the ratio 3:5 for a newspaper and further reduced in the ratio 4:5 for a text book. Find the ratio of the photograph size to the text book size. **(3 marks)**

17. The net of a solid is as shown below.



(a) Sketch the solid if ABCD is the base. **(2 marks)**

(b) Calculate the volume of the solid sketched in (a). **(2 marks)**

SECTION B (50 MARKS)

*Attempt **ONLY FIVE** questions in this section.*

18. Milk in a cooling factory is stored in a rectangular tank whose internal dimensions are 1.7m by 1.4m by 2.2m one day the tank was 75% full of milk.

a) Calculate the volume of milk in the tank in litres. **(3 marks)**

b) The milk is packed in small packets which are in the shape of a right pyramid on an equilateral triangle base of side 16cm. The height of each packet is 13.6cm. Each packet is sold at Sh.30. Calculate

i. The volume of milk in milliliters, contained in each packet to 2 significant figures. **(4 marks)**

ii. The exact amount of money that was realized from the sale of all the packets of milk. **(3 marks)**

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19.a) Using a ruler and a pair of compasses only construct a rhombus A B C D such that AB = 6cm and <ABC = 135°. **(4 marks)**

b) Drop a perpendicular from C to AB extended to meet AB at N. Measure BN and CN. **(3 marks)**

c) Bisect <ABC and <DAB, let the two bisectors meet at M. Measure MA. **(1 mark)**

d) Determine the area of triangle ABM. **(2 marks)**

20. a) A manufacturer sells goods to a shopkeeper at a profit of 15%. The shopkeeper sells them so as to make a profit of 25%. During a sale, the shopkeeper reduced his prices by 10%. Find, to the nearest shilling, the factory price of an article which was marked at sh. 450 during the sale. **(3 marks)**

b) Mrs. Kinuthia bought a car in USA for sterling pounds 10,000. She paid transportation charges from USA to Kenya amounting to 500 US dollars. On arrival to Kenya she paid import duty of 20% of the buying price and clearance tax of 0.5% of its total value in Kenya. If the exchange rate were as follows:

1 Sterling pound = 1.50 US dollars
1 Sterling pound = 120.00 Kenya shillings
1 US dollars = 80.00 Kenya shillings

i) Calculate the total amount paid for the car by Mrs. Kinuthia in Kshs. **(5 marks)**

ii) If Kinuthia later on sold the lorry at a profit of 10% find how much profit he was paid. **(2 marks)**

20. The following table gives the population of a town at different times.

YEAR	1990	1995	2000	2005	2010	2015	2020
POPULATION	5000	6100	7500	9100	11100	13600	16600

(a) Draw a graph of population against year to represent the information above. **(5 mark)**

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(b) From the graph estimate the population of the town in:

(i) 1998 (ii) 2011 (iii) 2017

(c) At what time was the population double the figure in 1999.

21. Three villages **A, B** and **C** drawn on a map of scale 1: 100,000 are such that **B** and **C** are 8km apart while **A** and **B** are 6.3 km apart on the actual ground**. C** is on a bearing of 315^0 from **B** and **A** is due south of **C,**

(a) Use scale drawing to show relative positions of **A, B** and **C**. (Also show two possible positions of **A**). **(4 marks)**

(b) What is the longest actual distance between villages **A** and **C?** **(2 marks)**

(c) A market serving the villages is placed in the most central position from each of the three villages. Using the longest position of **A** from **C,** locate the market with centre **M**, hence state the actual distance from **M** to vertex **A**. **(4 marks)**

22. a) Three people Amina, Bundi and Chari formed a business partnership. Amina invested sh.80,000 for 2 years, Bundi sh.50,000 for 3 years and Chari invested his money for 4 years. They agreed that the profits should be shared in proportion to the amount invested and the time for which it was invested. How much did Chari invest if Amina's share of profit of sh.129000 was sh.48000? **(5 marks)**

b) A lady buys a car for sh.40,000 paying sh.16000 and the remainder in instalments of sh.8000 paid at the end of each of the first three quarters together with a final payment at the end of the fourth quarter to clear the debt. Interest at 3% per quarter, reckoned on the amount owing at the beginning of each quarter is added at the end of each quarter.

Calculate the amount of the three quarters and also the final payment to clear the debt. **(5 marks)**

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23. A garden measures 10m long and 8m wide. A path of uniform width is made all round the garden. The outer perimeter of the path is 52m.

a) Find the width and the area of the path. **(4 marks)**

b) The path is to be covered with square concrete slabs. Each corner of the path is covered with a slab whose side is equal to the width of the path. The rest of the path is covered with slabs of side 50cm. The cost of making each corner slab is sh.600 while the cost of making each smaller slab is sh.50.

Calculate :

i) the number of the smaller slabs used **(3 marks)**

ii) the total cost of the slabs used to cover the whole path. **(3 marks)**

24. (a) Complete the table for the following equations

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

x	0	1.5	3	4.5
y				

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

x	0	1	2	3
y				

(b) On the grid provided draw the graph of the above equations

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(c) Use the graphs above solve for the equations (i) and (ii)

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