SECTION A: 40 MARKS

*Answer **all** the questions in this section*

*Questions **1** to **20** carry two marks each*

1. Work out: 24 + 42

2. Write "Forty-five thousand, thirteen" in figures.

3. Find the value of h: 4 + 5 = h (mod 7).

4. Work out the square of the next number in the sequence:

   128, 64, 32, 16, 8, _____

5. If set D = { p, e, n}, list all the proper subsets in D.

6. Solve the inequality: $6 - 2r > 14$

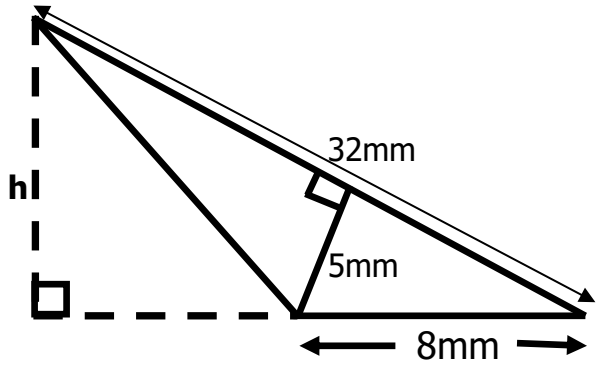
7. The scientific notation of a number is 6.5×10^{-3}. Find the number.

8. By selling a dress for Sh. 45,000, a boutique attendant gains sh. 5,600 Calculate the cost price of the dress.

9. The area of a rectangular piece of land is 250,000 square centimetres. What is the area of the same piece of land in square metres?

10. Write 0220 hours in 12 hour clock.

11. Study the figure below carefully and use it to find the value of **h** in millimetres.



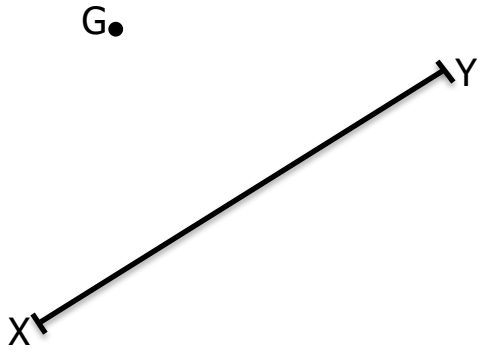
12. Work out: $2\frac{3}{4} + 1\frac{2}{3}$

13. A teacher wrote cards as shown below.

M	A	T	H	E	M	A	T	I	C	I	A	N

He placed them in a container and then told a pupil to select at random.
What is the probablility that a pupil selected a card with letter "**A**"?

14. Using a ruler, a pencil and a pair of compasses only, drop a perpendicular from point **G** to meet line segment **X Y** at point **R**.



15. Find the value of the digit in the hundredths place in the number 534.6281.

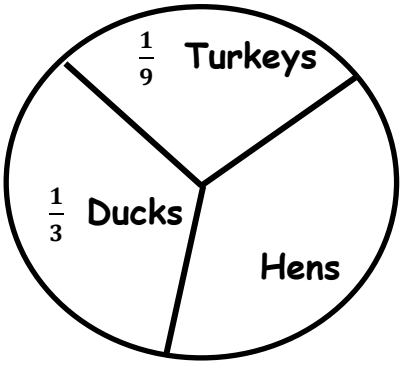
16. Simplify: 4a – 5b + 3a – 2b

17. The ministry of health reported to the public that the number of active cases for COVID–19 increased from 27 to 45. In what ratio did the number increase?

18. Mr. Lubega is to plant 21 orange trees in his compound in a straight line. What interval should he use to cover a distance of 80 metres?

19. Without dividing, show which of the numbers 791 and 3,438 is divisible by 6.

20. The circle graph below show different kinds of poultry birds kept by Mr. SSemakula. Study it carefully and answer questions that follow.



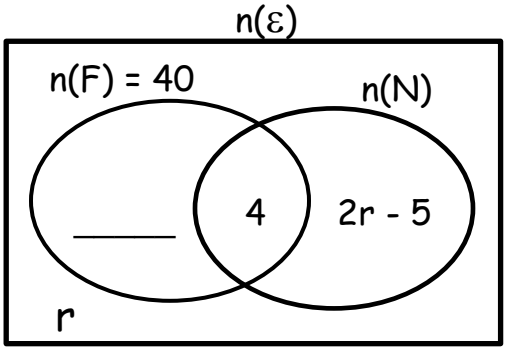
If there are 150 hens kept, how many poultry birds does he have altogether?

SECTION B: 60 MARKS

*Answer **all** the questions in this section*
Marks for each question are indicated in brackets

21. The diagram below shows the number of players in a school team who participated in football (F), netball (N) and other games.

(a) Complete the Venn diagram. *(01 mark)*



(b) If 37 players did not participate in football, find the value of r.

(02 marks)

(c) If a player is selected at random to be a team captain, what is the probability that the one selected participated in netball?

(03 marks)

22. A school bursar at Rwebikoona Primary school withdrew some amount of money from ABSA bank and the cashier gave him notes and coins as follows.

8 fifty thousand shilling notes

6 twenty thousand shilling notes

12 five hundred shilling coins

a) How much money did he withdraw altogether?

(04 marks)

b) If he asked for two thousand shilling notes, how many notes would he get for all the amount of money withdrawn?

(01 mark)

23. a) Given that $123_{\textbf{five}} + d = 1012_{\textbf{five}}$, find the value of d.

(02 marks)

b) Convert $134_{\textbf{eight}}$ into binary system

(03 marks)

24. A half of Kato's age and $\frac{1}{3}$ of John's age now sum up to 66 years. If John is 18 years older than Kato, how old is John now?

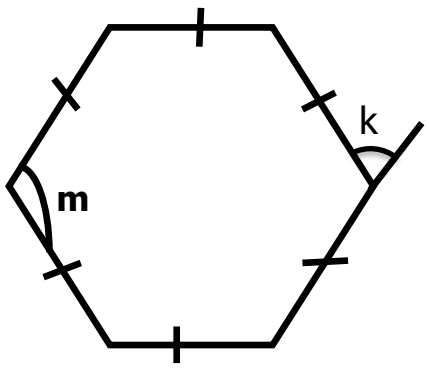
(4 marks)

25. a) Tabira left Kiryokya town at 4:45pm. He drove his car at a steady speed of 80 Kilometres per hour for 1½ hours from Kiryokya town to home. At what time did he reach home? *(02 marks)*

b) If the cost of petrol was sh.3,000 per litre and he used one litre of petrol to cover 3km. Find the cost of petrol for the journey from town to his home.

(03 marks)

26. The figure below is a regular polygon with angles marked **m** and **k.** Study and use it to answer questions that follow.



i) Find the value of angle marked **k** in degrees**.**

(02 Marks)

ii) Find the value of angle marked **m** in degrees?

(02 Marks)

iii) How many right angles can be formed in the regular polygon given?

(02 marks)

27. A triangle, a square and a pentagon has a total area of 96dm^2. The area of the shapes are in the ratio of their number of sides respectively. Find the area of each shape. *(04 marks)*

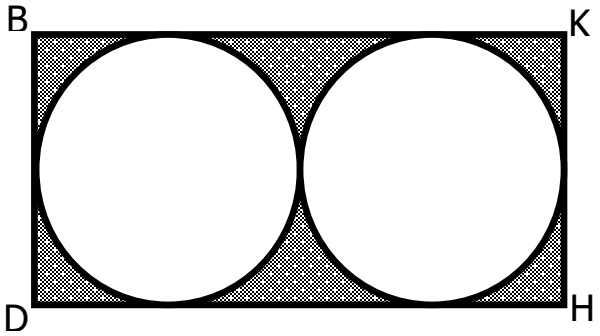
28.(a) Using a ruler, a pencil and a pair of compasses only, construct a quadrilateral WXYZ where line segment WX = 7.5cm, angle XWZ = WZY=90^0, line WZ = 4cm and angle WXY = 60^0.

(05 marks)

b) Measure the length XY. ……..cm *(01 Mark)*

29. The area of the two equal circles in the rectangle BDHK below is 308cm^2. Study it carefully and calculate the area of the shaded part. (Use π as $\frac{22}{7}$)

(5 marks)



30. a) The mean mass of Amos, Joshua, Amon and Jethro is 70kg.Joshua is 60kg, and Jethro is 90kg.Find the mass of Amos if Amon is as heavy as Jethro.

(03 marks)

b) Find the average of m, m – 4, m – 2 and m – 6

(02 marks)

31. Hakim and Nuriat take 2 days to weed a garden of crops. If Hakim alone can weed the same garden in 6 days, how long can Nuriat take to weed the same garden? *(04 marks)*

32. A bus driver left Kampala at 8:00am for Kisoro town. He travelled at a speed of 60km/h for 5 hours to Ntugamo town. He rested for one hour at Ntugamo town and then drove at 90km/h for 2 hours until he reached Kisoro town.
Draw a travel graph to show this information.

Vertical scale: One small square represents 30Km

Horizontal scale: One small square represents 30 minutes. *(5 Marks)*