

THE SIPRO PRE-PLE SET II 2022

MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

| Random No. | | | | | | Personal No. | | |
|------------|--|--|--|--|--|--------------|--|--|
| Index No. | | | | | | | | |

Candidate's Name: _____

Candidate's Signature: _____

School Random No: _____

District ID: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: **A** and **B**.
2. Section **A** has **20** questions (**40 Marks**).
3. Section **B** has **12** questions (**60 Marks**).
4. Attempt all questions in both sections. All answers to both sections **A** and **B** must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or *ink*. Only diagrams and graph work must be done in *pencil*.
6. Unnecessary *alteration* of work will lead to loss of marks.
7. Any *handwriting* that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated:

"FOR EXAMINER'S USE ONLY"

For Examiner's Use Only;

| PAGES | MARKS | INITIALS |
|--------|-------|----------|
| Page 1 | | |
| Page 2 | | |
| Page 3 | | |
| Page 4 | | |
| Page 5 | | |
| Page 6 | | |
| Page 7 | | |
| Page 8 | | |
| Page 9 | | |

Please turn over



THE SIPRO EDUCATIONAL SERVICES LIMITED - KAMPALA

PUBLISHERS OF THE SIPRO TEACHERS' GUIDES, LEARNER'S WORKBOOKS & PUPIL'S COMPANIONS

THE SIPRO PRE-PLE SET II 2022

MATHEMATICS

Time Allowed: 2 Hours 30 Minutes

| Index No. | Random No. | | | | | | Personal No. | | |
|-----------|------------|--|--|--|--|--|--------------|--|--|
| | | | | | | | | | |

Candidate's Name: _____

Candidate's Signature: _____

School Random No: _____

District ID: _____

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: **A** and **B**.
2. Section **A** has **20** questions (**40 Marks**).
3. Section **B** has **12** questions (**60 Marks**).
4. Attempt all questions in both sections. All answers to both sections A and B must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or *ink*. Only diagrams and graph work must be done in *pencil*.
6. Unnecessary *alteration* of work will lead to loss of marks.
7. Any *handwriting* that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated:

"FOR EXAMINER'S USE ONLY"

For Examiner's Use Only;

| PAGES | MARKS | INITIALS |
|--------|-------|----------|
| Page 1 | | |
| Page 2 | | |
| Page 3 | | |
| Page 4 | | |
| Page 5 | | |
| Page 6 | | |
| Page 7 | | |
| Page 8 | | |
| Page 9 | | |

Please turn over



THE SIPRO EDUCATIONAL SERVICES LIMITED - KAMPALA

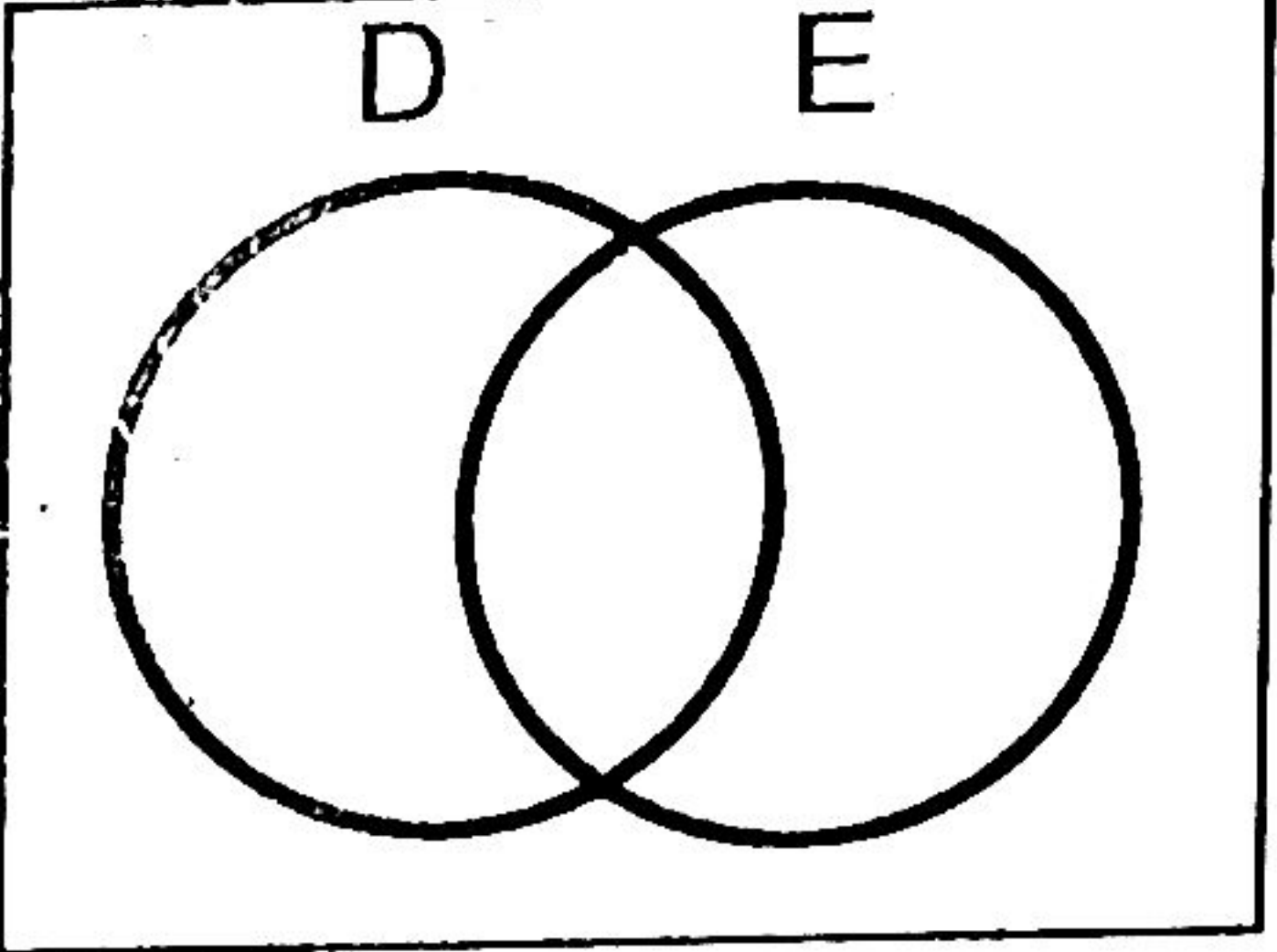

PUBLISHERS OF THE SIPRO TEACHERS' GUIDES, LEARNER'S WORKBOOKS & PUPIL'S COMPANIONS

SECTION A: 40 MARKS

Questions 1 to 20 carry two marks each

| | | | |
|---|---|---|--|
| 1 | <p>Work out: $15 \div 3$</p> | 2 | <p>Convert: 111_{two} to base ten.</p> |
| 3 | <p>Round off 89.96 to the nearest tenths.</p> | 4 | <p>If set $Z = \{a, b, c\}$. Fill in the missing proper subsets of set Z: $\{a\}, \{b\}, \{c\}, \{a, b\}, \underline{\hspace{2cm}}, \{b, c\},$ $\underline{\hspace{2cm}}$</p> |
| 5 | <p>With help of a ruler, a sharp pencil and a pair of compasses only, construct a perpendicular line from point Q to meet line AB at O</p> <p align="center">Q •</p> <p align="center">A B</p> | 6 | <p>Use distributive property to work out $(324 \div 9) + (153 \div 9)$.</p> |
| 7 | <p>A mathematics examination which started at 08 20hrs lasted for 150 minutes. At what time did it end?</p> | 8 | <p>Find the mean of $\frac{7}{9}, \frac{2}{9}, \frac{1}{9}$ and $\frac{4}{9}$</p> |

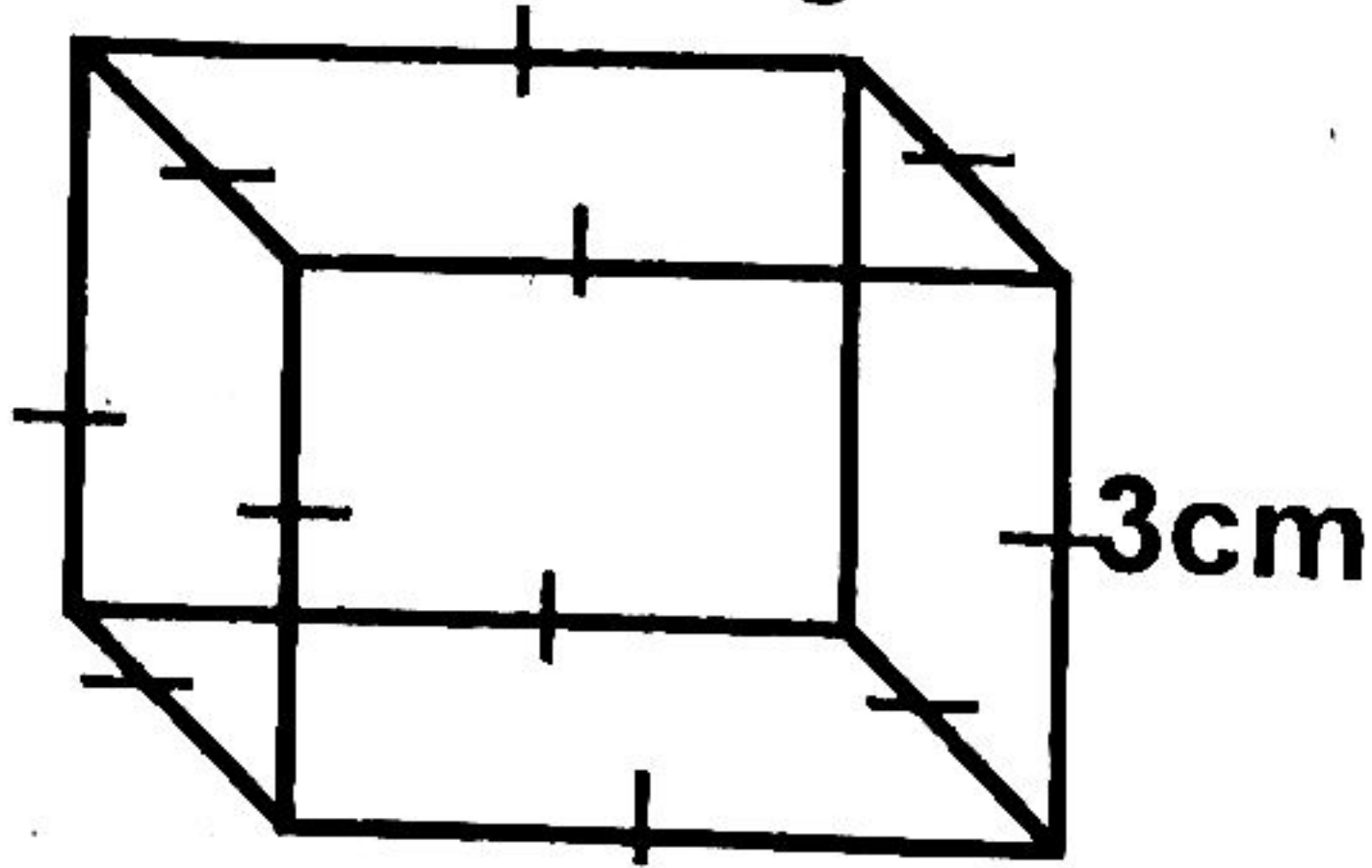


| | | | |
|----|---|----|---|
| 9 | Use a dial to work out: $4 \times 3 = \underline{\quad}$ (finite 7) | 10 | The cost of 1kg of porridge flour is sh. 7,500. How many kilogrammes of porridge flour would Sarah buy with sh. 45000 at the same rate? |
| 11 | Find the number whose scientific notation is 3.95×10^2 . | 12 | In the venn diagram below, show the region $(D - E) \cap$  |
| 13 | Given that $a = 7 + 2$ and $b = 7 - 2$ Find the value of $a - b$. | 14 | Express $0.23333\dots$ as a common fraction. |
| 15 | Charles ran a distance of 200m in 2 minutes . What speed in km/hr was he running? | 16 | A Primary Seven pupil counted buses along Gulu Highway on a certain day as follows:  How many buses did the pupil count that day? |



17

Calculate the total length of all edges of the cube drawn below.



18

Find the **quotient** of the fifth and second number in the sequence:
4, 9, 16, 25, _____

19

Solve for y in the equation:

$$\frac{1}{2}y + y = 3$$

20

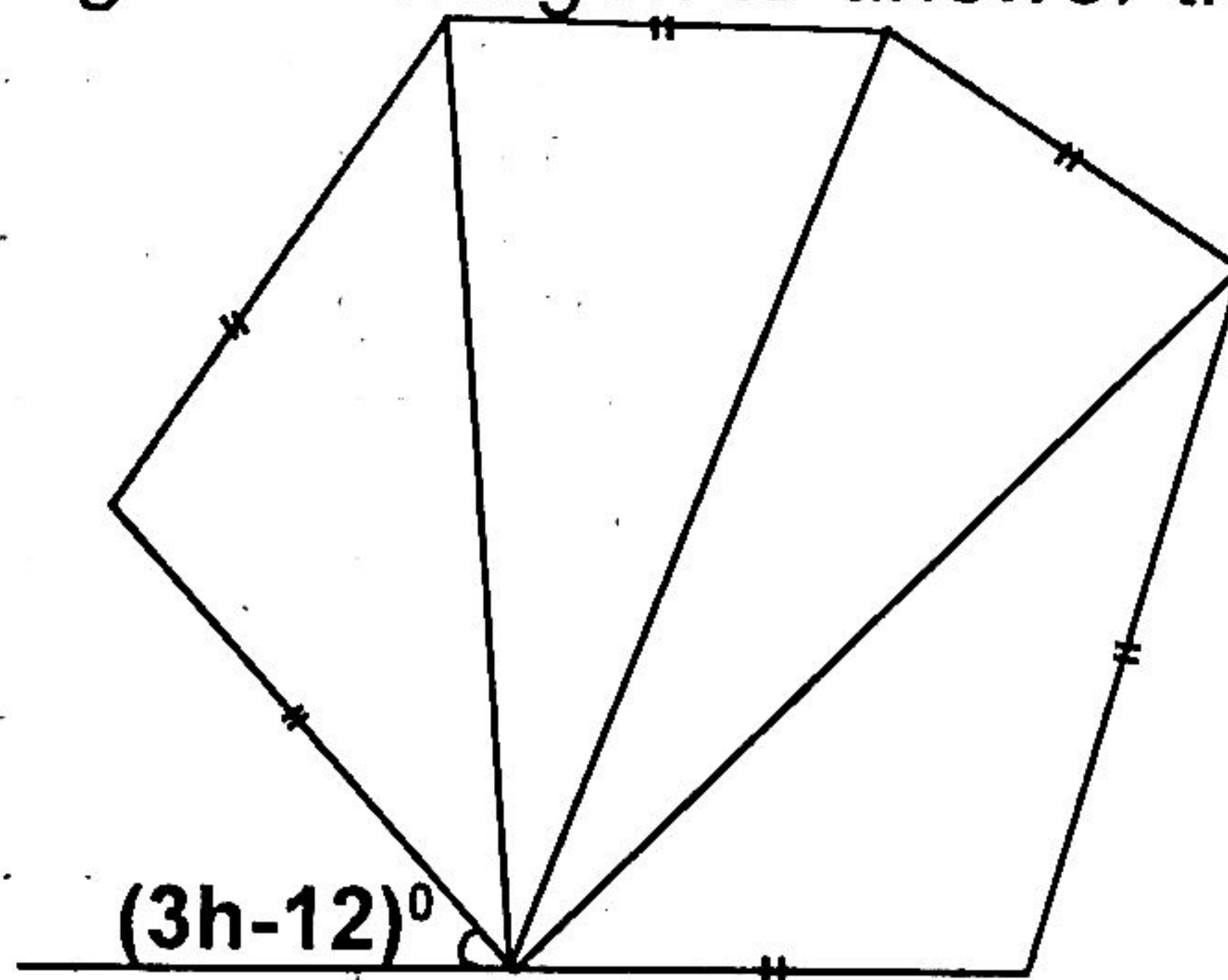
Write 2795 in expanded form using powers of ten.

SECTION B: 60 MARKS

Marks for each part of the question are indicated in the brackets

20

Use the drawn regular hexagon to answer the questions that follow.



a)

Find its **interior angle sum**.

(02 marks)

b)

Work out the value of h .

(03 marks)



22

Takali bought the following items from the supermarket as shown in the table below.

a)

Complete the blank spaces.

| Item | Quantity | Unit cost | Total cost |
|--------------------|-------------------|-------------------|------------|
| Rice | $2\frac{1}{2}$ kg | sh.4800per kg | sh. _____ |
| Meat | 0.5kg | sh. _____ per kg | sh. 8000 |
| Sugar | _____ kg | sh. 3500per kg | sh. 8750 |
| Soap | 2 bars | sh. _____ per bar | sh. _____ |
| Expenditure | | | sh. 41750 |

(05 marks)

23a)

The Ministry of Public Service revised the salary payment of its workers from sh. 480,000 to sh. 500,000. Calculate the percentage **increase**.

(02 marks)

b)

Find the money which was **deposited** in the bank at an interest rate of 5% per year that amounts to **sh. 264,000** after a period of **2** years.

(02 marks)



24 The table shows 10 pupils who sat for a mathematics test at ABC Primary School. Use it to answer the questions that follow.

| | | | | |
|------------------|----|----|----|-----|
| Marks scored | 70 | 60 | 55 | 100 |
| Number of pupils | 2 | Y | 4 | 1 |

a) How many pupils scored **60** marks?

b) Calculate the average mark of pupils who scored marks above 55. (02 marks)

(03 marks)

25a) Add: $111_{\text{two}} + 111_{\text{two}}$

(02 marks)

b) Given that $104_w = 29$. Find the value of w.

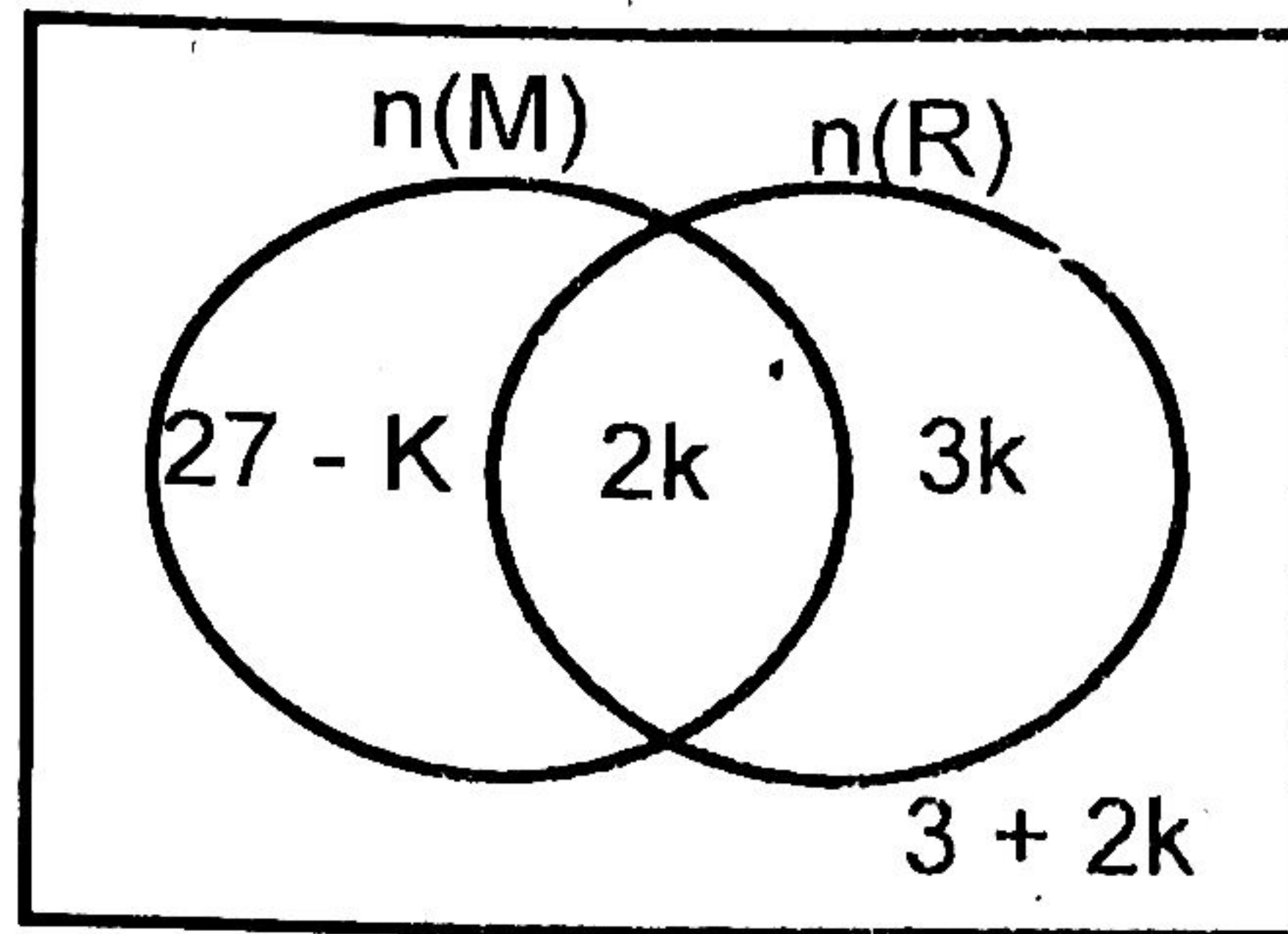
(03 marks)

26a) With the help of a ruler, a pencil and a pair of compasses only, construct a quadrilateral NBRS where angle $\text{NBR} = 45^\circ$, $\text{NB} = \text{RS} = 5\text{cm}$, $\text{BR} = \text{NS} = 7\text{cm}$.

(04 marks)



30 The venn diagram below shows the number of candidates who were served two kinds of food; Matoke (M) and rice (R) at the leaver's party.



a) If 11 candidates were served neither matoke nor rice, find the value of K.

(02 marks)

b) How many candidates attended the party?

(02 marks)

31 The figure below shows a rectangular sheet which is folded to form a hollow cylindrical tank.

