

# BUKEDDE MOCK EXAMINATION

## 2023

### MATHEMATICS

Time Allowed: 2 hours 30 minutes

Index No.

Random No						Personal No		

Candidate's Name.....

Candidate's Signature .....

School Random Number .....

District Random Number .....

Read the following Instructions carefully:

1. The paper has two sections; A and B.

Section A has 20 questions and section B has 12 questions.

2. Answer all questions. All answers to both Section A and B must be written in the spaces provided,

3. All answers must be written using a blue or black ball point pen or ink. Diagrams should be drawn in pencil.

4. Unnecessary changes in your work may lead to loss of marks.

5. All handwriting that cannot be easily read may lead to loss of marks.

SCORES	
Qn No	Marks
1 - 20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	



## SECTION A

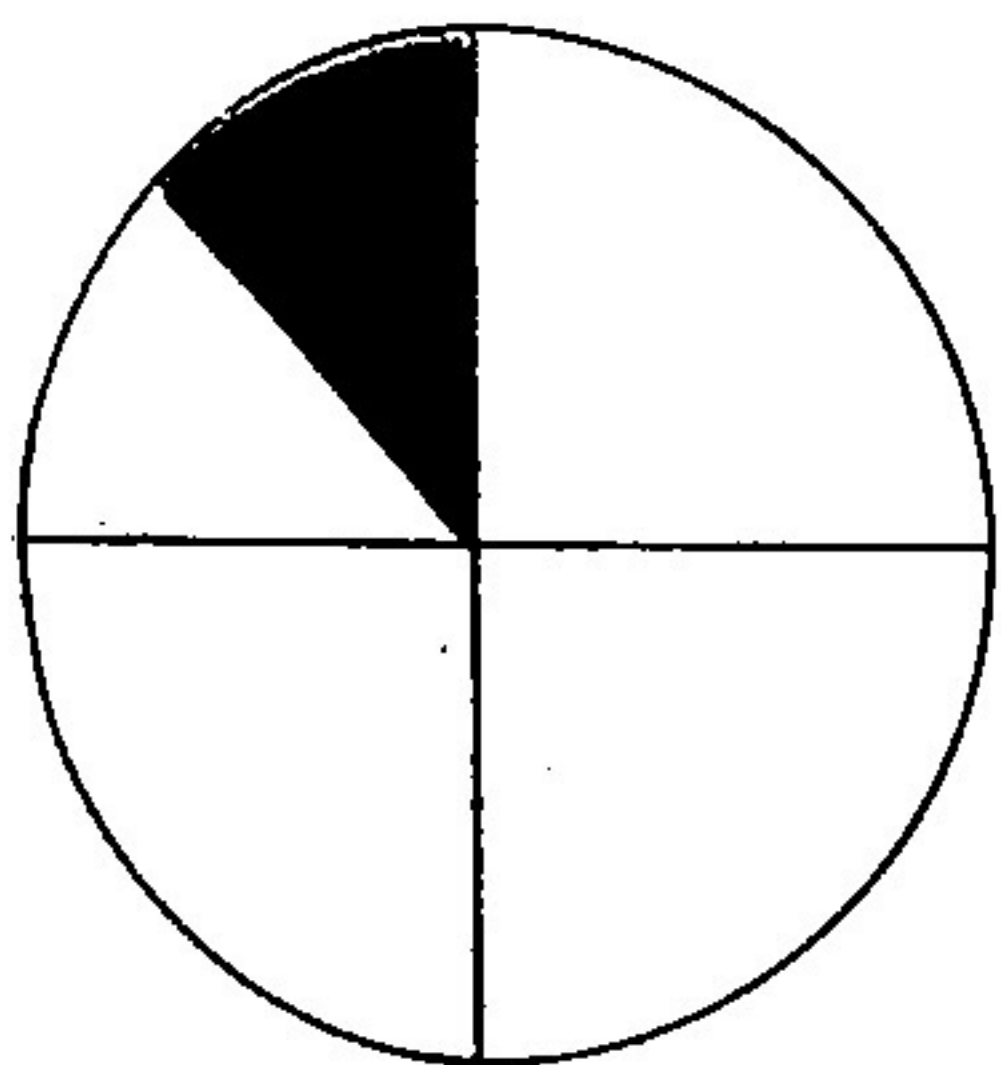
1. Find the missing number in the statement shown below.

$$\begin{array}{r} 7 \ 2 \ 6 \\ + \ 1 \ \square \\ \hline 7 \ 4 \ 3 \end{array}$$

2. Set  $R = \{1, 2, 3, 4, 5, 6\}$ . What is the probability of choosing a triangular number from set  $R$ ?

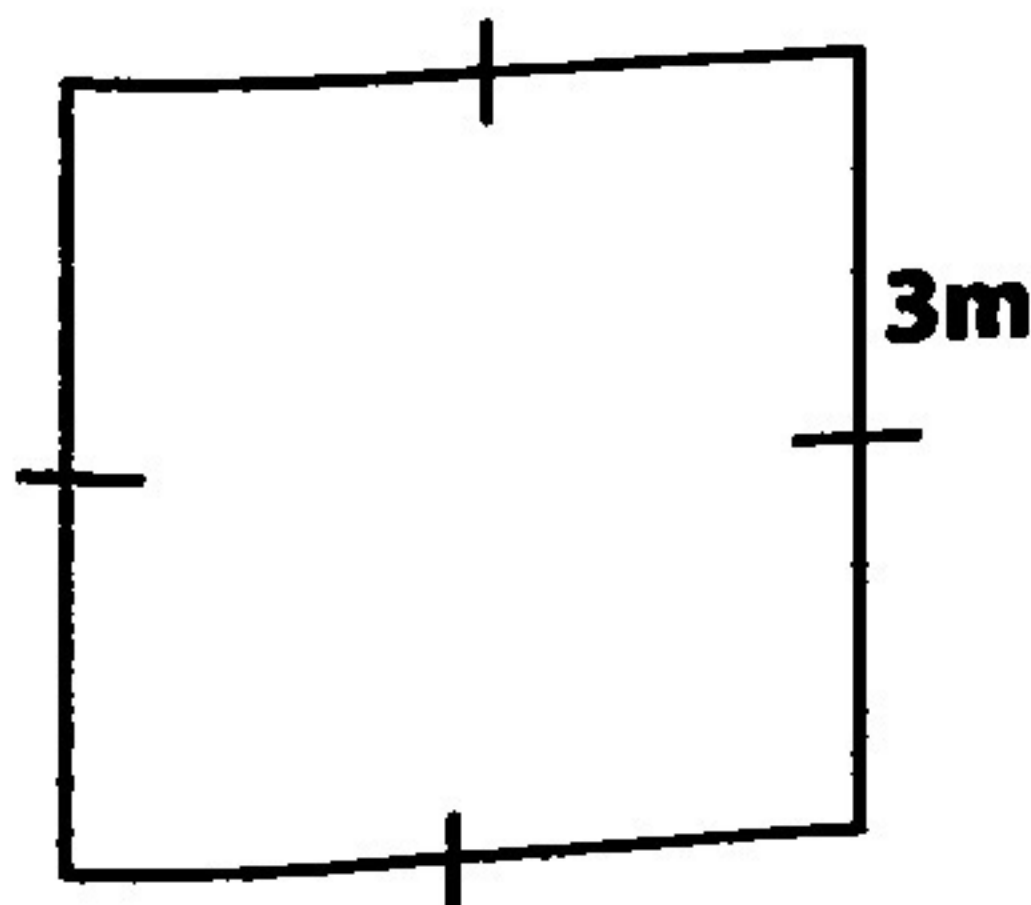
3. Expand 256 using values.

4. What fraction of the figure below is unshaded?



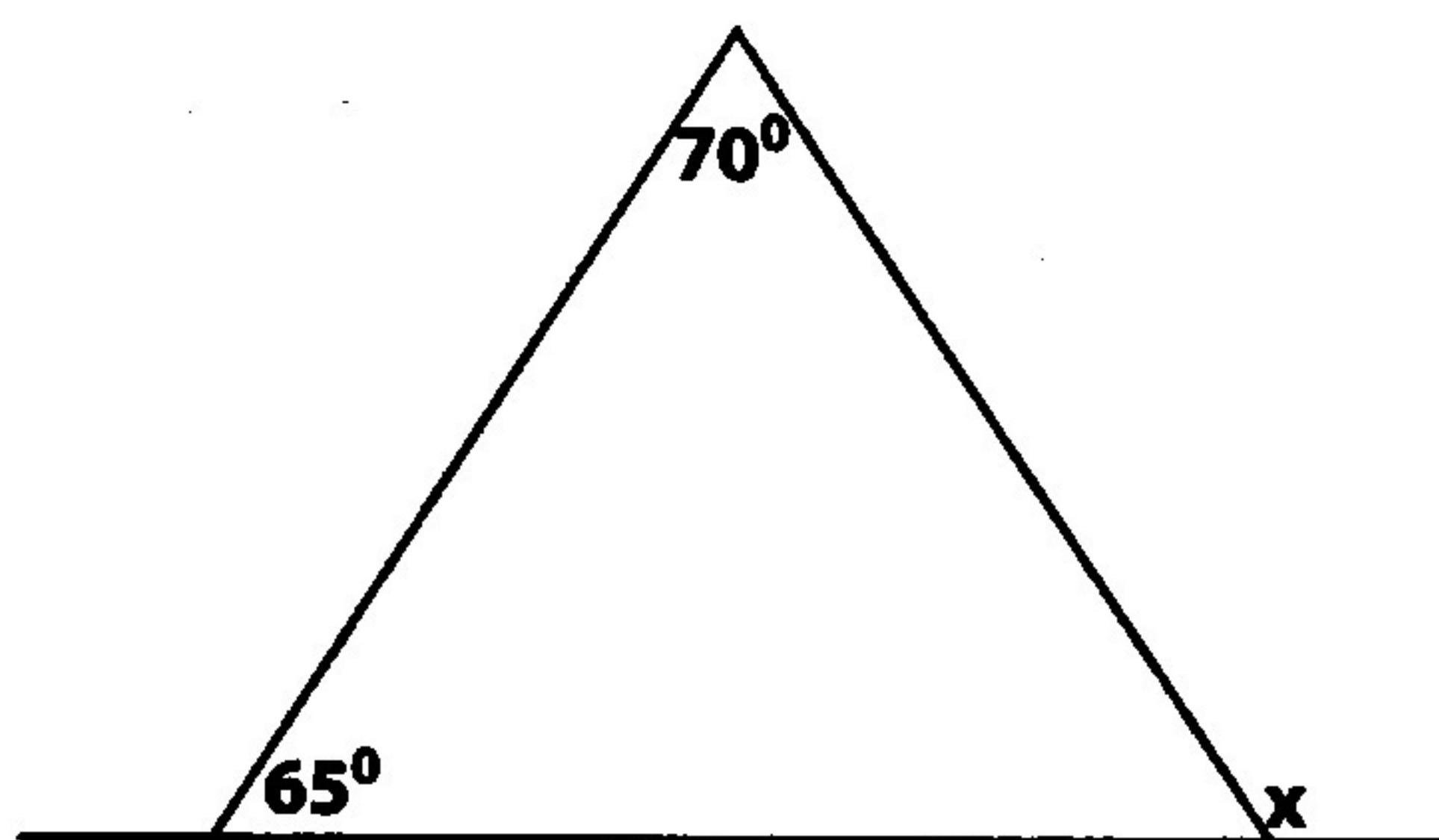
5. Ada scored 45, 90 and 75 in different Maths tests. Calculate her mean score.

6. The figure below represents the floor of a bathroom. Calculate its area in square centimetres.



7. Bamuteze bought a small techno phone at sh. 30,000. He later sold it to Mary at a loss of 10%. How much did Mary pay for the phone?

8. Study the figure below. Find angle  $X$ .

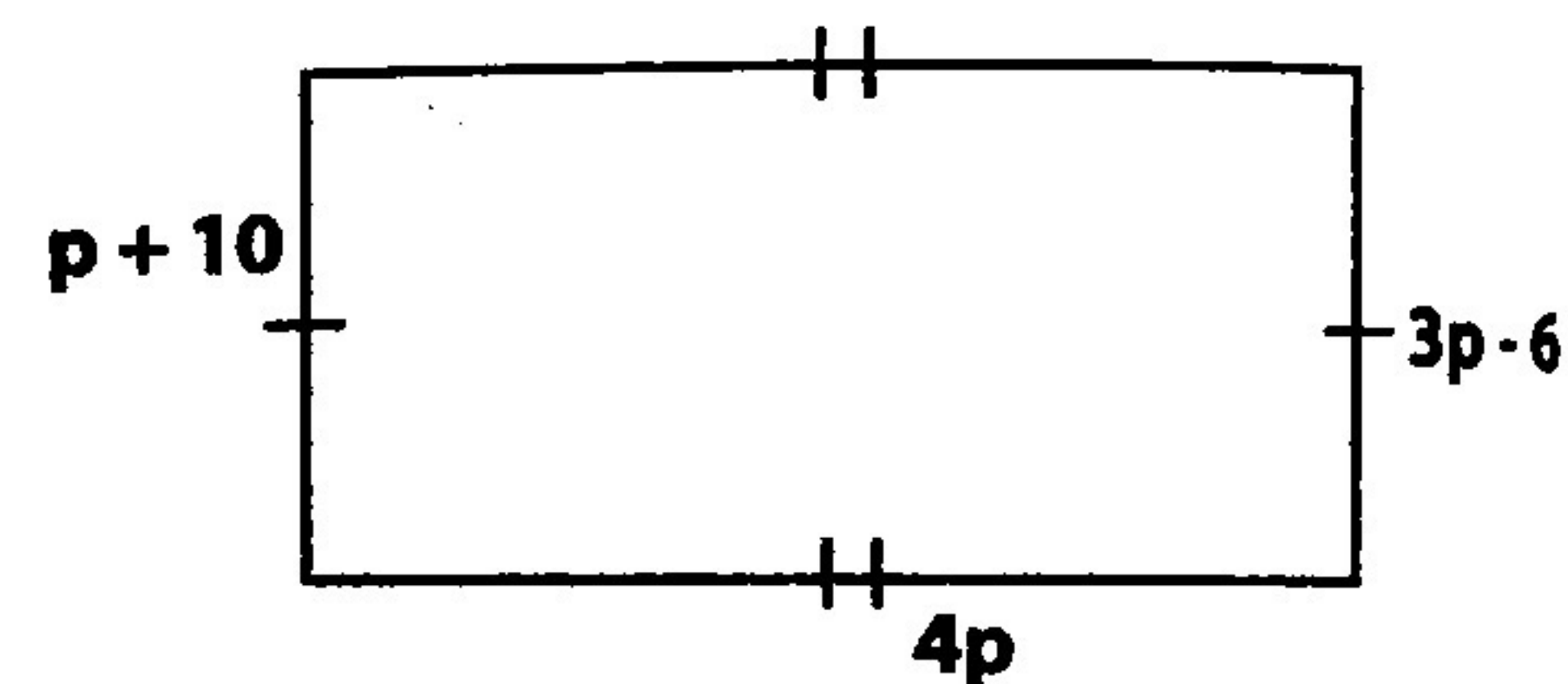


9. Work out:  $(-7) \times (+4)$

10. While travelling at a speed of 80km per hour, Mama covered a distance of 200km. Calculate the time taken.

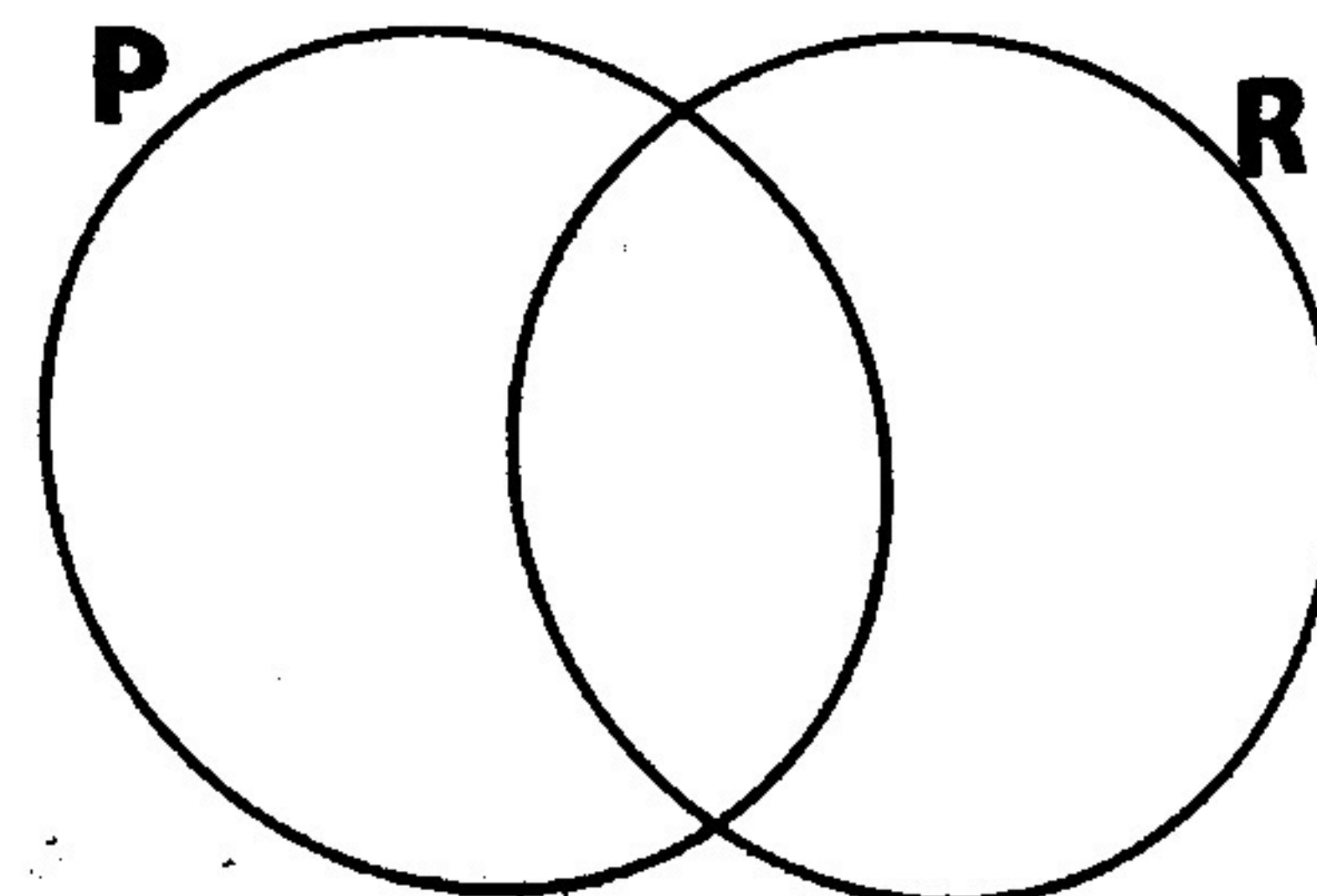
11. Convert 324five to base ten.

12. Study the figure below and find the value of  $p$



13. If 3402 sweets are shared equally among 14 girls how many sweets does each girl get?

14. Shade set  $R$  only in the Venn diagram below.





15. Work out the number of trees a farmer can plant in a straight line along a distance of 200 metres at an interval of 5 metres.

18. Write the number whose standard form is  $6.58 \times 10^3$ .

16. Using a ruler and a pair of compasses only, construct an angle of  $75^\circ$  at point Q.

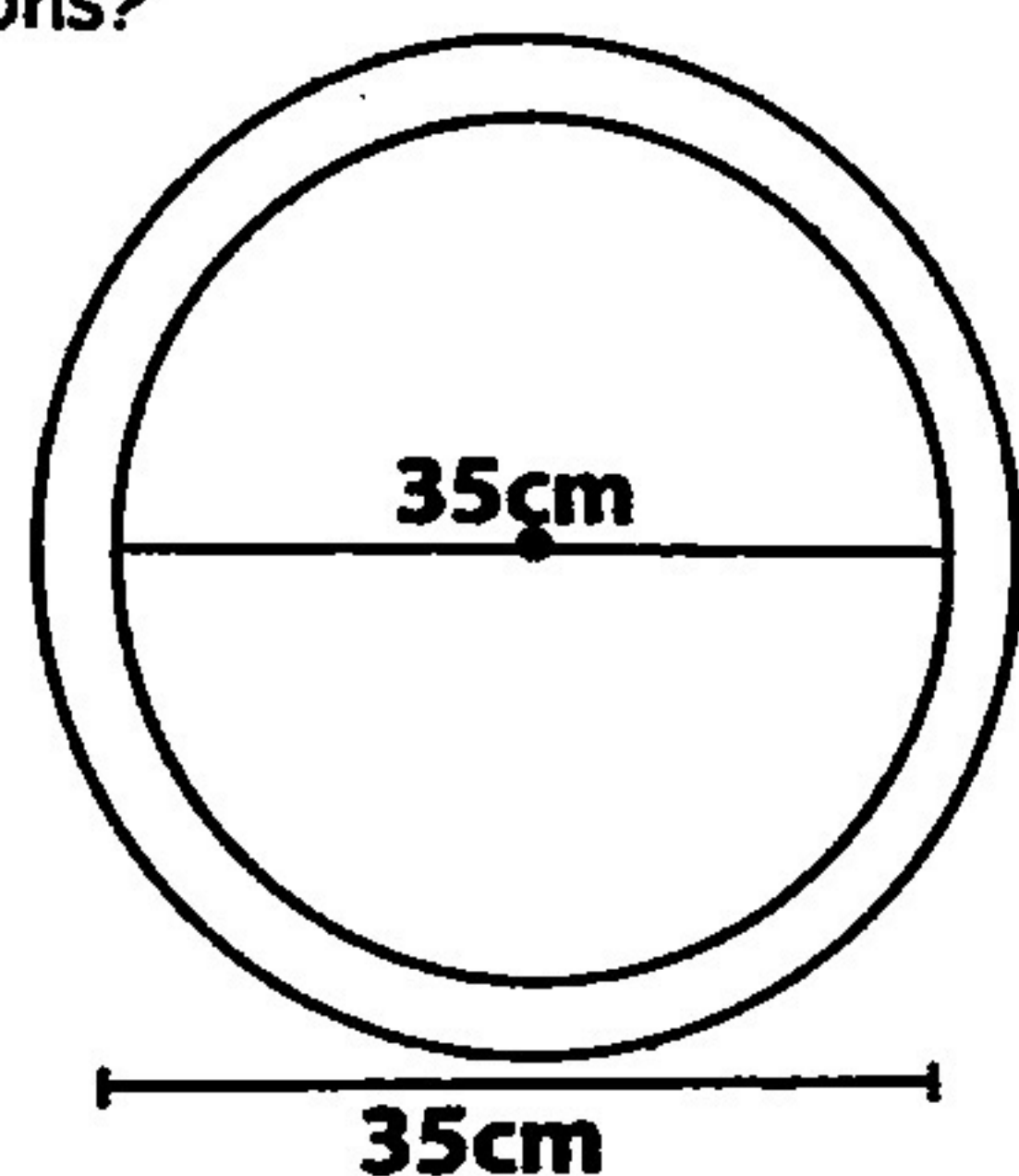
19. Mr. Vuni borrowed sh. 200,000 from a savings group that charges an interest rate of 4% per month. How much interest did he pay after 5 months?

17. A car takes  $2\frac{1}{2}$  hours to cover a certain journey at 90km/hr but takes  $3\frac{1}{2}$  hours to return through the same route. Calculate the average speed for the whole journey.

20. Work out:  $8.4 \div 0.07$

## SECTION B

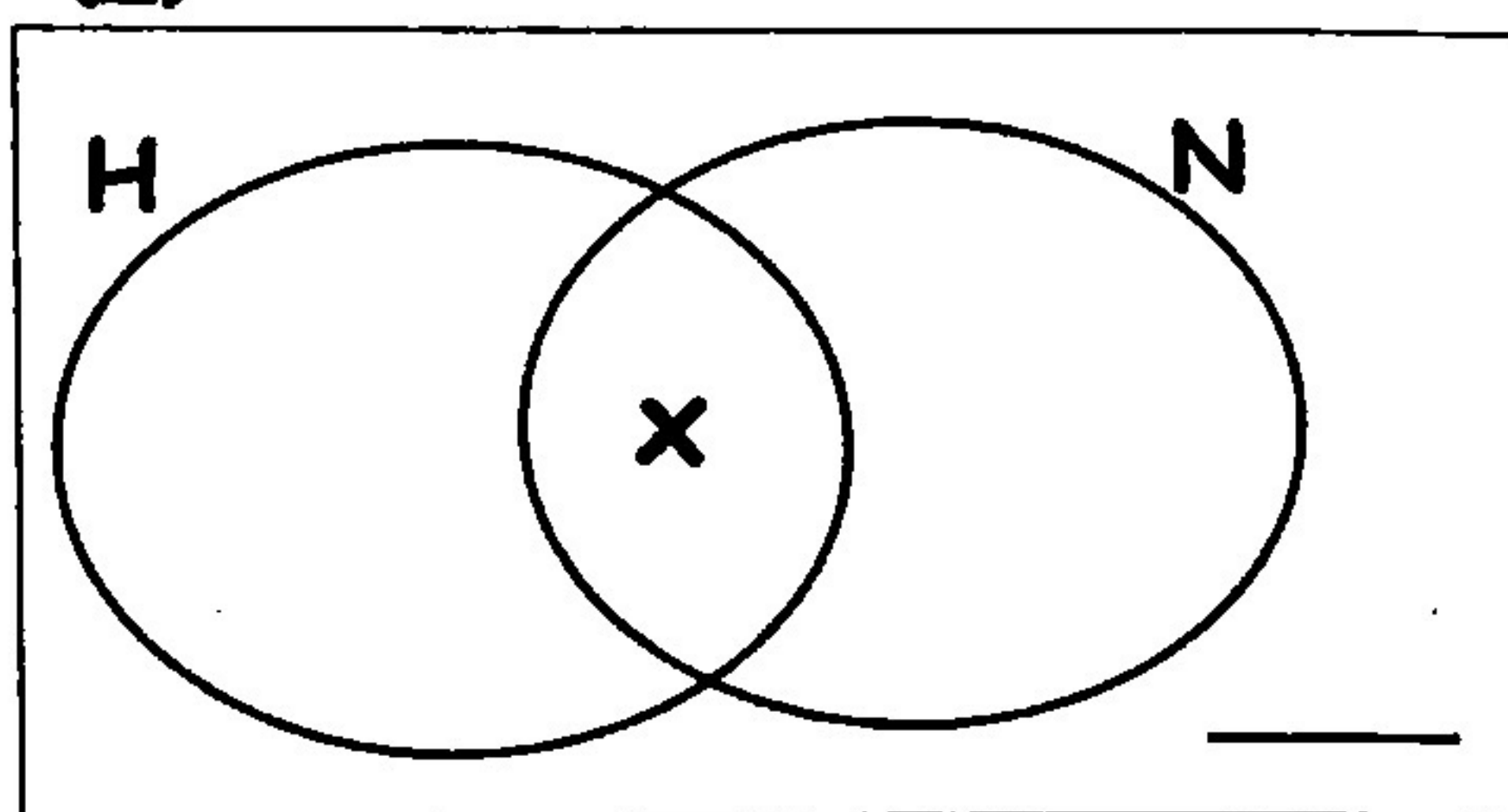
21. The diagram below represents a bicycle tyre. How much distance does it cover if it makes 3 revolutions?



22. In a class of 35 students, 26 play Hockey (H), 20 play Netball (N) play both games while 5 play NEITHER of the games.

23. a) Ten men can do a piece of work in 14 days. How long will 7 men take to do the same piece of work while working at the same rate?

$$n(\Sigma) = 35$$



a) Complete the Venn diagram using the information above.

b) Find the value of x.

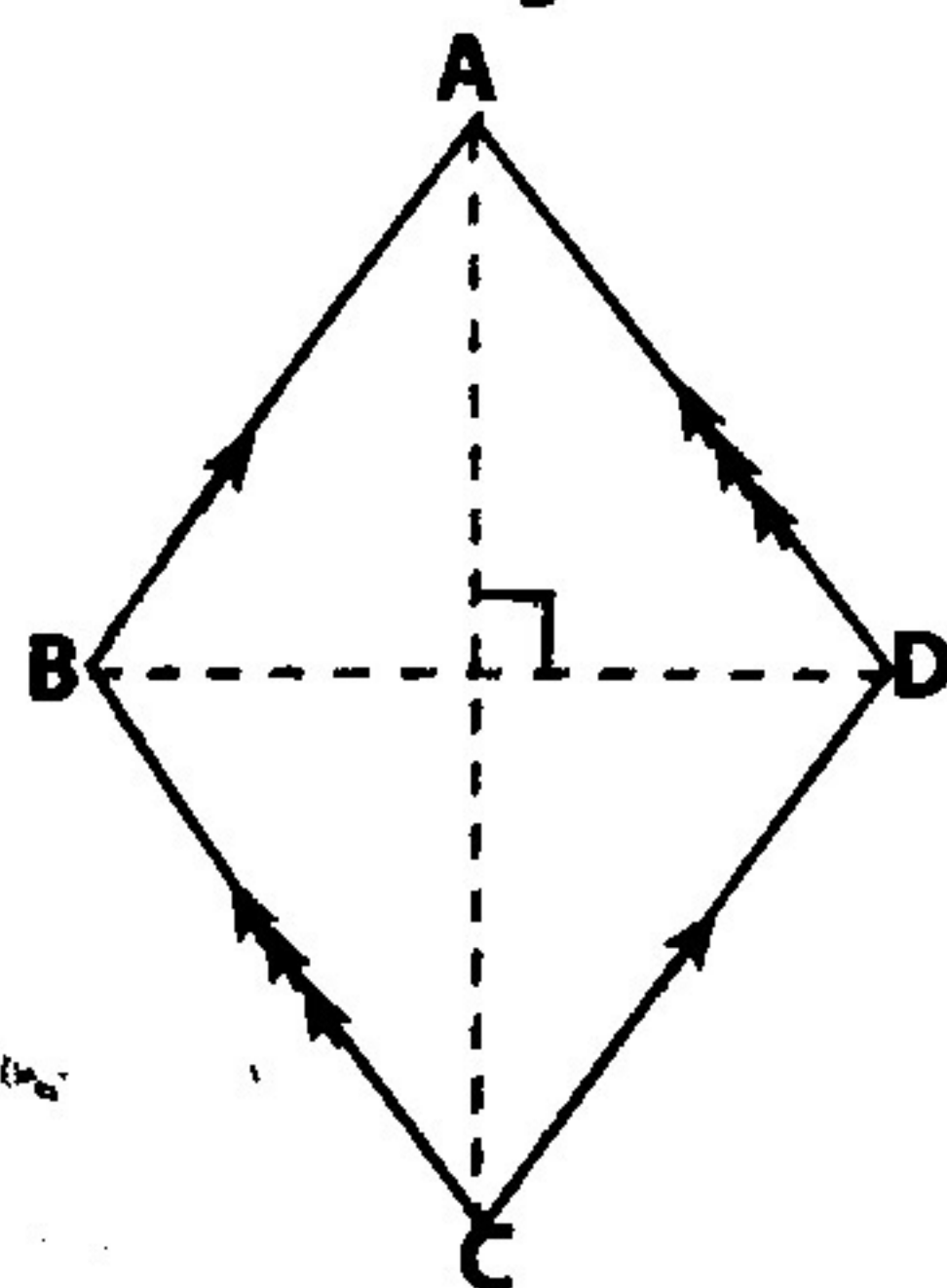
c) If  $\frac{x}{5} = 20\%$ , what is the value of x?



24. a) Using a pair of compasses and a ruler only, construct a triangle ABC in which  $BC = 6\text{cm}$ , angles  $ABC = 120^\circ$  and angle  $BCA = 30^\circ$

b) Measure AC

25. The diagram below is a rhombus ABCD. It has a perimeter of 80cm, diagonal  $BD = 24\text{cm}$ .



a) Find the length of AC

b) Find its area.

26. Mama bought the following items:

- 3 kg of posho at sh. 4,000 per kg
- $\frac{1}{4}$  kg of fish at sh. 20,000 per kg
- 500g of beef at sh. 7,000

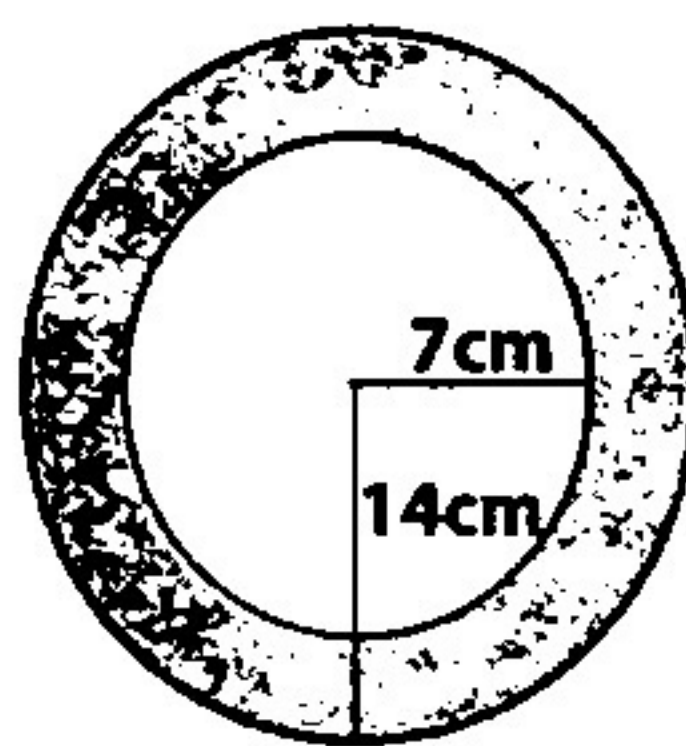
a) How much did Mama spend altogether?

b) Mama got a change of sh. 1000. Find the amount of money Mama had before buying the items.

27. a) Solve:  $3(p - 2) - 4(p - 2) = 9$

b) Kadelo is four times as old as his son. Their total age is 50 years. How old is kadelo's son?

28. Study the figure below.



a) Work out the area of the shaded part.

b) Calculate the circumference of the larger circle.

29. Willy banked sh.200,000 for 1 year 3 months in a certain bank; He got an interest of sh.12500 at the end of that period. Find the percentage interest rate of this bank.

30. a) Work out:  $5 \times 7 = \underline{\hspace{1cm}}$  (finite 8)

b) If today is Saturday, what day of the week was it 42 days ago?

31. Study the table below showing scores in math test.

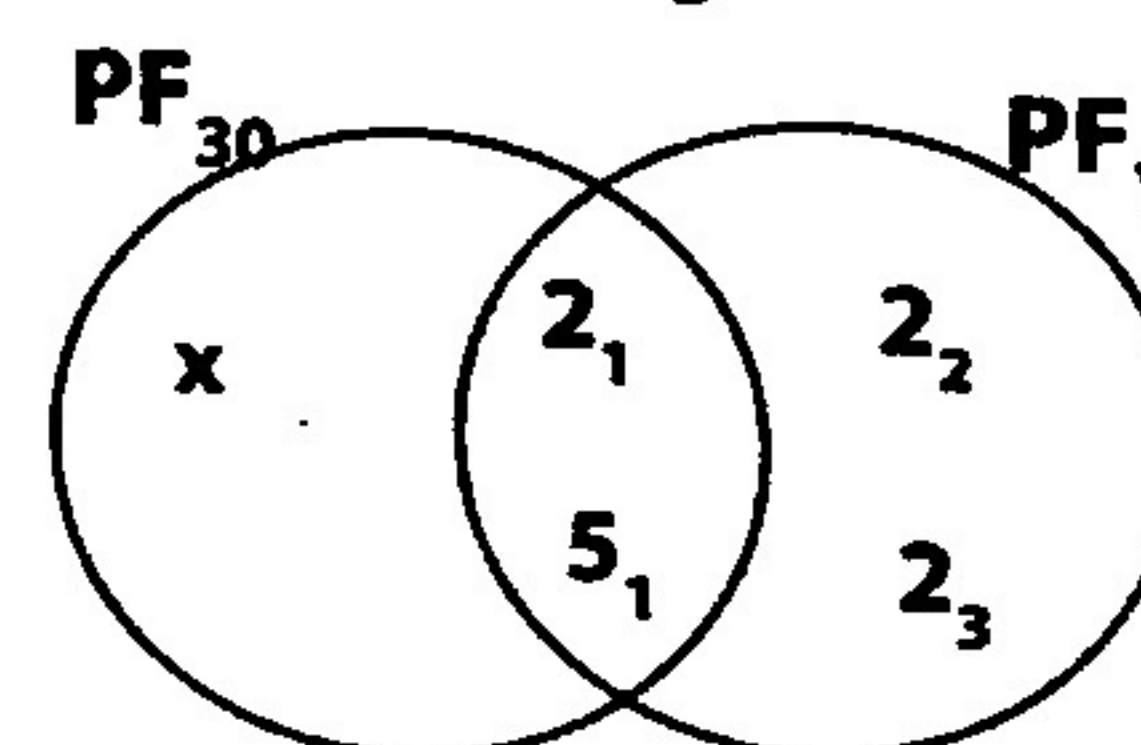
Name	Njuba	Opi	Juma	Owino	Mwebe
Marks obtained	86	45	X	72	83

a) If the mean score was 70, find the value of x.

b) Arrange the marks in descending order.

c) What was the median mark?

32. Study the Venn diagram below:



a) Find the value of:

i) x

ii) y

b) Work out the LCM of 30 and y.