

**EDUCATION SOURCE EXAMINATION BOARD 2024**

**PRE-PLE EXAMINATION 2024 SET II**

**P.7 MATHEMATICS**

***Time allowed: 2 Hours 15 Minutes***

TARGET MARK

Index No.

RANDOM NO.						PERSONAL NO.		

**CANDIDATE'S NAME:** .....

**CANDIDATE'S SIGNATURE:**.....

**SECTION A (40 marks)**

1. Divide:  $16 \div 2$

2. Add:  $\frac{1}{3} + \frac{1}{2}$

3. Given that set  $A = \{D, O, G\}$ , find the number of subsets in set A.

4. Simplify  $4a - 3b - a + 4b$

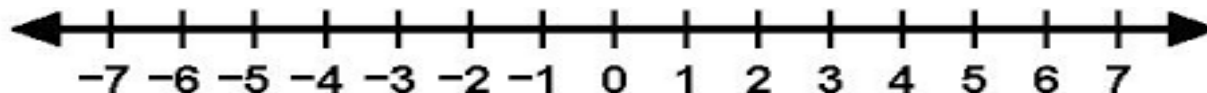
5. Find the product of the next two numbers.

12, 10, 8, 6, 4, \_\_\_\_\_, \_\_\_\_\_

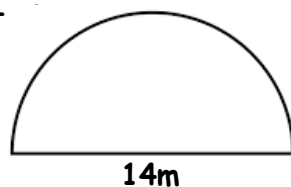
6. Write in words 9099

7. What is the probability that the sun will rise from the East tomorrow?

8. Work out  $3 \times -2$  using the number line below.



9. A forty minute lesson ended at 10:10a.m. When did it start?
10. Using a pencil, a ruler and a pair of compasses only, construct an angle of  $30^{\circ}$ .
11. Work out the distance covered by an insect that moved round the given figure



12. By selling a goat at shs. 120,000. Jane made a profit of 20%. What was the cost price of the goat?

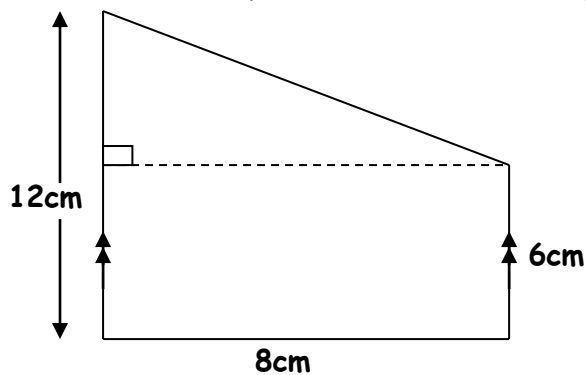
13. Given that  $x$  is the GCF of 8 and 24. Find the value of  $x$ .

14. The table below shows marks scored by a group of pupils in a P.7 class.

X	30	70	40	60
F	3	2	1	1

Find the median mark.

15. Work out the perimeter of the figure below.

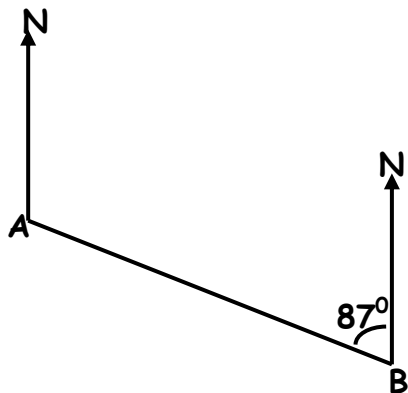


16. After one week, Peter's water meter read from 00267 units to 00277.

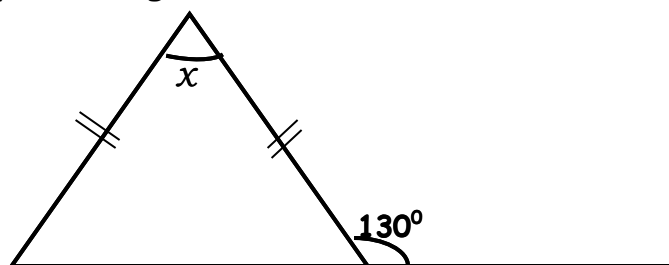
How much money was Peter to pay for the water bill given that each unit was at Shs. 3500?

17. A car moved at a speed of 48km/hr for 20 minutes. What distance did it cover?

18. What is the bearing of **A** from **B**?



19. Study the diagram below and work out the value of  $x$ .



20. A mother is twice as old as her daughter. Given that the sum of their age is 90 years, find the age of the mother.

### **SECTION B**

21. In a team of 21 players, all play football(F), 7 play both Hockey(H) and Football only, 5 play both Football and Volleyball(V) only, X play all the three kinds of games while 3 play only football.

(a) Draw a clear Venn diagram representing the above information

**(3marks)**

(b) How many players play all the three types of games? **(2 marks)**

22. (a) Work out  $1 + 2 + 3(1 + 2 + 3)$  **(2 marks)**

(b) Write 4362 in standard form. **(2 marks)**

23. A man spends  $\frac{2}{3}$  of his salary on food,  $\frac{1}{4}$  of the remainder on fees and saves the rest.

(a) What fraction of his salary does he save? **(3 marks)**

(b) If he spends 60,000 as fees, calculate his salary. (3 marks)

24. Study the shopping bill and use it to answer the questions that follow.

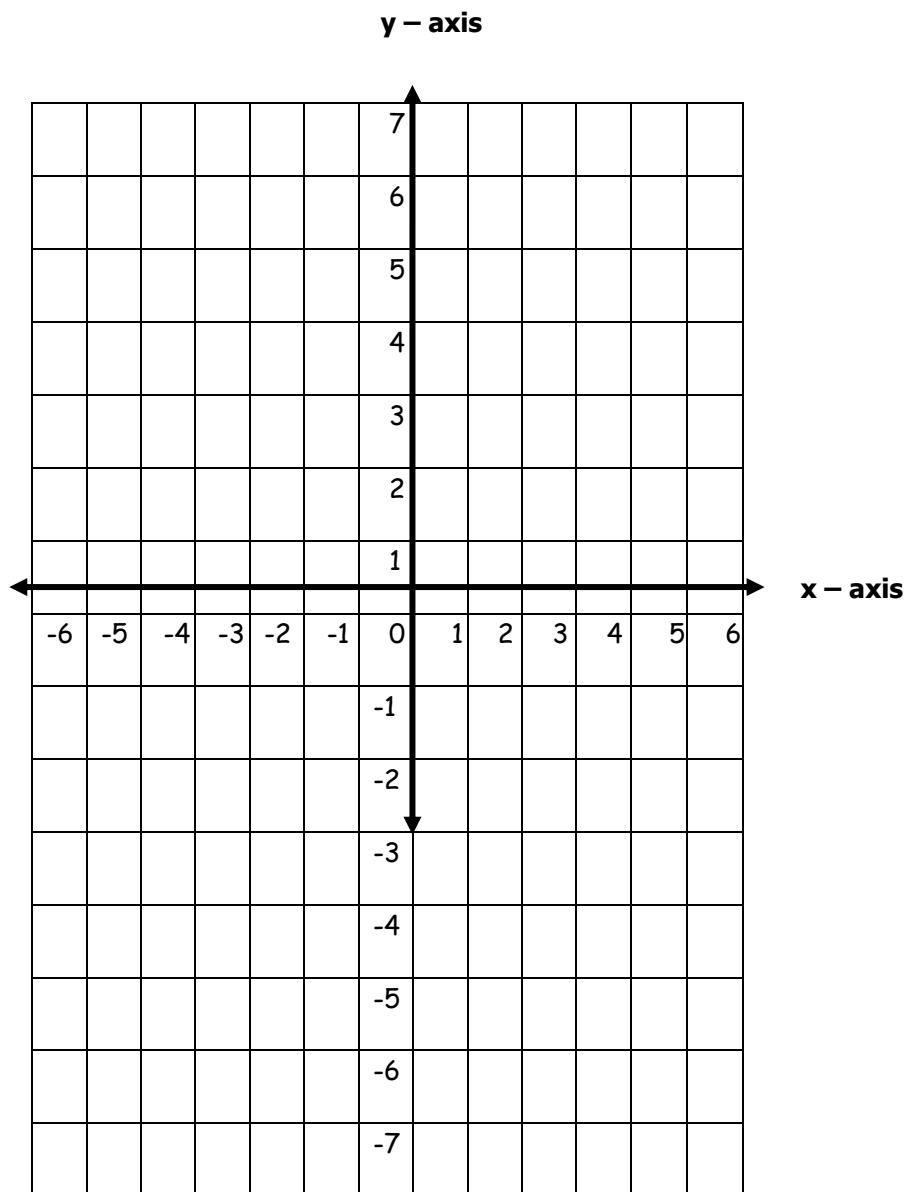
(a) Complete the table. (5 marks)

ITEMS	QUANTITY	UNIT COST	AMOUNT
Rice	20kg	Sh. 4500	Sh. _____
Meat	2 ½kg	Sh.10000	Sh. _____
Salt	_____kg	Sh. 1000	Sh. 500
Sugar	3kg	Sh. _____	Sh. 12,000
TOTAL EXPENDITURE			Sh. _____

(b) If there was a discount of 5% on the total expenditure, calculate the actual amount that was paid for the items.



25. Use the graph below to answer the questions that follow.



- (a) Plot the points **A**(2, 5), **B**(-3, 1) , **C**(4, -5) and **D**(0,1)
- (b) Join **A** to **B** , **B** to **C** to **D** and **D** to **A**
- (c) Name the polygon formed.

26. How many complete revolutions can a wheel of diameter 70cm make in a distance of 0.66km?

27. A motorist left town P to town Q at a steady speed of 90km/hr for 2 hours and continued to town R at a speed of 60km/hr for 3 hours.

(a) Find the distance from P to R.

(b) Calculate his average speed for the whole journey.

28. (a) Work out  $\frac{0.64 + 0.24}{0.12 - 0.04}$

(b) Solve  $\frac{2p^2}{3} = 24$

29. The table below shows marks scored by different pupils. Study it and answer the questions that follow.

Marks	35	40	50	70	90
No of Pupils	2	3	2	2	1

(i) Find the modal mark

(ii) What was the range?

(iii) Calculate the average mark scored.

30. A cylindrical tank of water has a diameter of 28cm and a height of 100cm.

(i) Work out the volume of the tank.

(ii) Calculate the capacity of the tank when full.

31. A geometry set costs half as much as a book. A book costs Sh. 600 more than a pen. If the total cost of the three is Sh. 6900, find the cost of a geometry set.

32. (a) Using a ruler, a pencil and a pair of compasses only, construct a triangle PQR in which  $PQ = 8\text{cm}$ ,  $QR = 6\text{cm}$  and angle  $PQR = 90^\circ$ .

(b) Measure PR.

**END**