



Negombo Educational Zone

Second Term Evaluation -2022

Mathematics

Index No :

Grade 8

Paper I & II

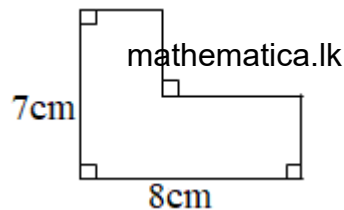
Duration: 2 hours

Paper I

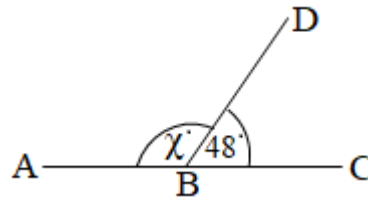
Answer all the questions.

1) Find the 5th term of the number pattern with the general term $3n + 1$.

2) Find the perimeter of this figure.



3) Find the value of x .



4) Find the value of $(+8) - (+3)$.

5) Evaluate. $\sqrt{2 \times 2 \times 3 \times 3 \times 5 \times 5}$

6) Evaluate. $(-5)^2$

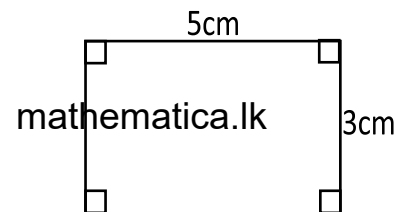
7) If $5.3 \times 2.5 = 13.25$, find the value of 0.53×2.5 .

8) Express $\frac{23}{7}$ as a mixed number.

9) If the price of 1kg of dhal is X rupees, write down an expression for 250g of dhal.

10) Simplify. $\frac{2}{7} \times 28$

11) If the length and the breadth of this rectangle is doubled ,how many times will the area of the new rectangle be, with respect to the rectangle given?



12) Find the Highest Common Factor of the algebraic terms, $4x$, $8xy$, $12xy$.

13) Express $\frac{3}{5}$ as a percentage.

14) Solve the equation, $2x + 7 = 9$.

15) Find the time in Greenwich - England, when the time in Rome - Italy is 17:30, which is located in (+1) time zone.

16) Simplify. $(+3) \times (-6) \times (-2)$

17) The ratio of the metals X and Y in an alloy is 5:4. The ratio between the metals Y and Z in the same alloy is 2:1. Find the compound ratio of the metals X, Y and Z in the alloy.

18) Fill in the blanks using suitable symbols from \in and \notin .

5 { Prime Numbers }

18 { Multiples of 4 }

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19) Simplify. $3 - 0.72$

20) Express 1060kg in Metric Tons.

Paper II

- Answer 5 questions including the first question and 4 more.
- First question carries 16 marks and 11 marks for each of the others.

1.

a) Given below is the way that Kelum and Tharindu invested money on a business.

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Name	Amount invested	Date of investment	No. of months of the investment in the year 2021	Amount invested \times No. of months
Kelum	Rs. 80 000	2021/01/01 months \times
Tharindu	Rs. 60 000	2021/07/01 months \times

- Fill in the blanks in the table above.
- Express how the profit should be divided among Kelum and Tharindu as a ratio in its simplest form.
- If Rs. 22 000 is received as the profit at the end of the year, find the profit gained by each one separately.

- b) An alloy is made by mixing Iron and Zinc. The amount of Zinc in the mixture is 168g. The amount of Iron mixed is 52%.
- Find the percentage of Zinc mixed.
 - Find the total mass of the mixture.
 - Find the mass of Iron in the mixture.
 - Find the ratio between the masses of Iron and Zinc in the mixture.

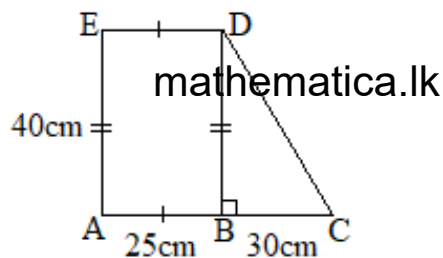
2.

i) Fill in the following table about solids.

Platonic solid	Vetices	Faces	Edges
Regular octahedron	<input type="text"/>	8	<input type="text"/>
Regular dodecahedron	20	<input type="text"/>	<input type="text"/>
Regular icosahedron	12	<input type="text"/>	30

- Name the other Platonic solids which are not mentioned in the above table.
- What is the shape of a face of a regular dodecahedron?
- What is the shape of a face of a regular octahedron?
- What is the order of rotational symmetry of a square?

3. (a)



Given above is a sketch drawn to make a pandol in a school.

- Find the area of the rectangle ABDE.
- Find the area of the triangle BDC.
- Find the total area of the sketch.
- Find the perimeter of the sketch, if DC is 50cm.

(b) Find the perimeter of a square shaped garden with an area of 25m^2 .

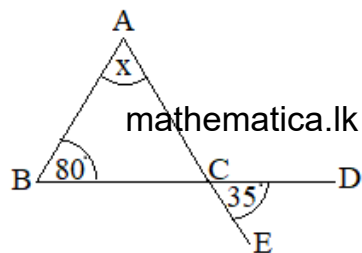
4. (a) List out the elements of the following sets.
- i) $P = \{ \text{Triangular numbers between 0 and 10} \}$
 - ii) $Q = \{ \text{Letters of the word "COLOMBO"} \}$
 - iii) $R = \{ \text{Multiples of 4 between 1 and 4} \}$
 - iv) Write the values of $n(P)$, $n(Q)$ and $n(R)$.

(b)

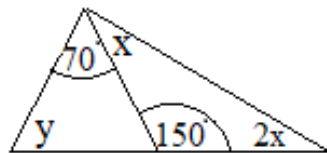
- i) $A = \{ 1, 4, 9, 16, 25 \}$ Express the set using a common characteristic.
- ii) Express the set A using a Venn diagram.

5.

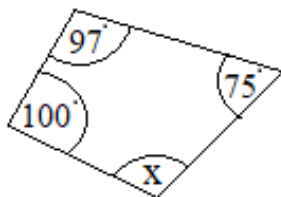
- i) Find the value of x .



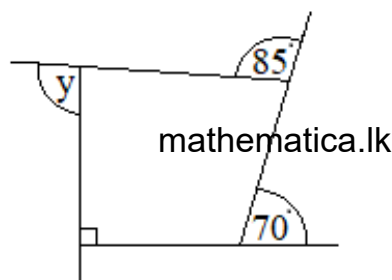
- ii) Find the values of x and y .



- iii) Find the value of x .



- iv) Find the value of y .



6.

(a) Solve the following equations.

i) $\frac{x}{6} = 3$

ii) $2(x - 4) = 6$

iii) $\frac{x}{7} - 2 = 3$

(b)

i) Express as a product of two factors. $15x - 30$

ii) Express as a product of two factors. $2a - 4ab + 24ac$

iii) Find the value of x^3 , if $x = (-2)$

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7. From the stock of eggs that Sunil took for selling from his farm, $\frac{1}{10}$ was broken.

i) Express the unbroken eggs as a fraction.

ii) If the number of unbroken eggs is 63, find the number of eggs taken for selling by Sunil.

iii) Find the number of broken eggs.

iv) Express the number of eggs which could be sold, as a fraction of the total number of eggs.

v) If an egg could be sold at a price of Rs. 45, find the total amount received by Sunil by selling the eggs.

PARCEL NO



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School Book ගුරු අතපොත්



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පෙර පාසලේ සිට උසස් පෙළ දක්වා සියළුම ප්‍රශ්න පත්‍ර,
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