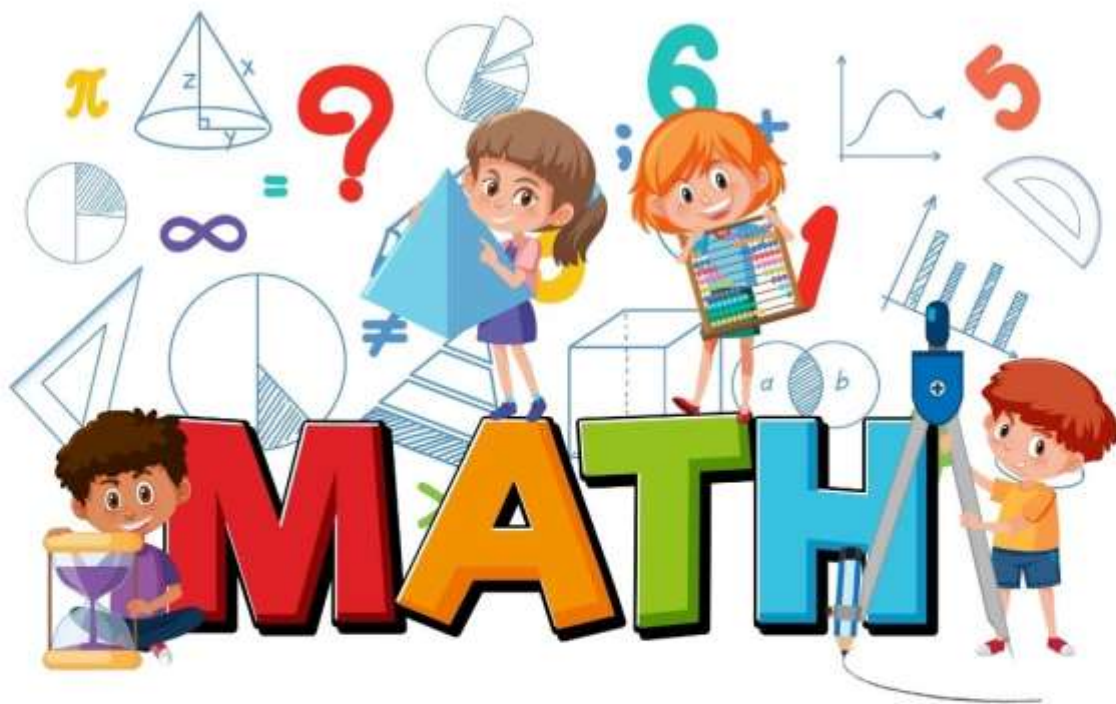




IBMYP Extended Maths Sample Paper 3



WWW.TYCHR.COM

IB MYP Extended Math On screen-examination

Total Marks: 100 marks

Instructions

- The on-screen examination has not yet started.
- Your time will begin once you have clicked the Start button below. Do not click Start until instructed to do so.
- Before the examination begins you are given 5 minutes to become familiar with its structure. Please navigate around the examination, taking note of the length of each task and question. You have 2 hours to complete the examination.
- There are 10 separate questions in this examination. Each question may have sub-parts. Answer all the questions in the response boxes provided. The maximum mark for this examination is 100 marks.
- As you progress through the questions, your answers are automatically saved.
- When 2 hours has ended, you will no longer be able to answer any questions.

Question 1: 5 marks

1. A city is planning to construct a new park with a unique geometric design. The park will consist of two main sections: a circular flower garden and a rectangular playground. The city's landscape architect needs to determine the dimensions and area of each section to finalize the park's design.

Question:

The landscape architect is considering the following design for the park:

a) Circular Flower Garden: The circular flower garden will be located at the center of the park. The landscape architect wants the flower garden to have a diameter of 10 meters. Calculate the area of the circular flower garden. (2 marks)



Answer:

Area of the Circular Flower Garden:

Given that the diameter of the circular flower garden is 10 meters, we can use the formula for the area of a circle:

$$\text{Area} = \pi \times (\text{radius})^2$$

Since the diameter is 10 meters, the radius (r) is half of the diameter, which is $10/2 = 5$ meters.

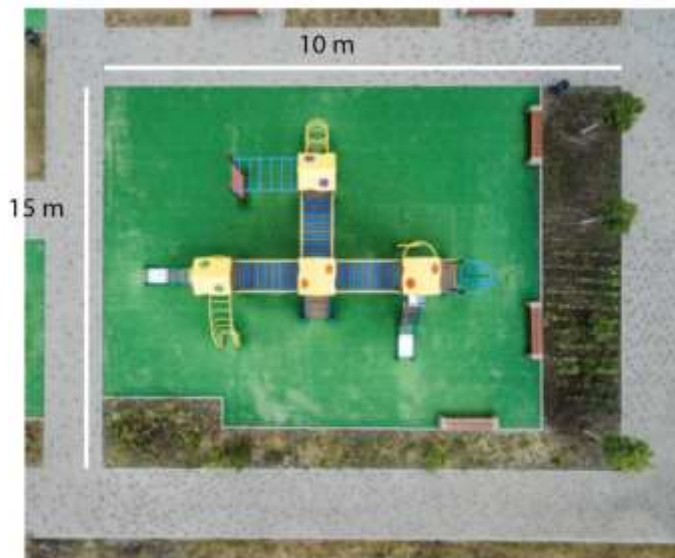
$$\text{Area} = \pi \times (5 \text{ meters})^2$$

$$\text{Area} \approx 3.14 \times 25 \text{ square meters}$$

$$\text{Area} \approx 78.5 \text{ square meters}$$

Therefore, the area of the circular flower garden is approximately 78.5 square meters.

b) Rectangular Playground: The rectangular playground will be adjacent to the circular flower garden. The landscape architect wants the playground to have a length of 20 meters and a width of 15 meters. Calculate the area of the rectangular playground. (2 marks)



Answer:

Area of the Rectangular Playground:

Given the length (L) of the playground is 20 meters and the width (W) is 15 meters, we can use the formula for the area of a rectangle:

$$\text{Area} = \text{Length} \times \text{Width}$$

$$\text{Area} = 20 \text{ meters} \times 15 \text{ meters}$$

$$\text{Area} = 300 \text{ square meters}$$

Therefore, the area of the rectangular playground is 300 square meters.

c) Total Area of the Park:

Calculate the total area of the park, including both the circular flower garden and the rectangular playground. (1 mark)



WWW.TYCHR.COM



+91 9540653900