



كلية العلوم

القسم : الرياضيات

السنة : الثانية

المادة : لغة تخصصية 2

المحاضرة : الثالثة

{{ مكتبة A to Z }}

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2

يمكنكم طلب المحاضرات برسالة نصية (SMS) أو عبر (What's app-Telegram) على الرقم 0931497960

1. Definite Integral (تكامل محدد)

Definition: A definite integral calculates the area under a curve between two specific points a and b.

Notation: $\int_a^b f(x) dx$

Example: $\int_0^1 x^2 dx = 1/3$

2. Continuity (اتصال)

Definition: A function is continuous if you can draw its graph without lifting your pencil. Formally, a function is continuous at a point a if $\lim_{x \rightarrow a} f(x) = f(a)$.

3. Perimeter (محيط)

Definition: The perimeter is the total distance around the outside of a shape.

Example: The perimeter of a rectangle with length 5 and width 3 is $5 + 3 + 5 + 3 = 16$

4. Area (مساحة)

Definition: Area is the amount of space inside a two-dimensional shape.

Examples:

- Area of a rectangle = length \times width
- Area of a circle = πr^2

5. Volume (حجم)

Definition: Volume is the amount of space inside a three-dimensional object.

Examples:

- Volume of a cube = side³
- Volume of a sphere = $(4/3)\pi r^3$

6. Radius (نصف القطر)

Definition: The radius is the distance from the center of a circle to any point on the circle.

Example: If a circle has diameter 10, its radius is 5.

7. Diameter (القطر)

Definition: The diameter is the distance across a circle through its center. It is twice the radius.

Example: $d = 2r$

8. Angle (زاوية)

Definition: An angle is formed by two rays that share a common endpoint called the vertex.

Types:

- Acute angle: less than 90°
- Right angle: exactly 90°
- Obtuse angle: between 90° and 180°
- Straight angle: exactly 180°

9. Parallel Lines (خطوط متوازية)

Definition: Parallel lines are lines in a plane that never intersect. They have the same slope.

10. Perpendicular Lines (خطوط متعامدة)

Definition: Perpendicular lines are lines that intersect at a right angle (90°). Their slopes are negative reciprocals.

11. Theorem (نظرية)

Definition: A theorem is a statement that has been proven to be true based on previously established statements, such as axioms and other theorems.

Example: The Pythagorean Theorem: $a^2 + b^2 = c^2$ for a right triangle.