

7 Lecture - MTH101

Important Subjective

1. **What is the domain of a function?**

Answer: The domain of a function is the set of all input values (or independent variables) for which the function is defined.

2. **What is the range of a function?**

Answer: The range of a function is the set of all output values (or dependent variables) that the function can produce.

3. **What is the difference between a composite function and a simple function?**

Answer: A simple function is a function that consists of a single equation, while a composite function is a function that is formed by combining two or more functions.

4. **What is the inverse of a function?**

Answer: The inverse of a function is a new function that reverses the operation of the original function.

5. **What is the difference between a one-to-one function and a many-to-one function?**

Answer: A one-to-one function is a function that maps each element of the domain to a unique element of the range, while a many-to-one function is a function that maps multiple elements of the domain to a single element of the range.

6. **What is the composition of functions?**

Answer: The composition of functions is the process of combining two or more functions to create a new function.

7. **What is the difference between a domain and a codomain?**

Answer: The domain of a function is the set of all input values, while the codomain is the set of all possible output values.

8. **What is a linear function?**

Answer: A linear function is a function that can be represented by a straight line on a graph.

9. **What is a polynomial function?**

Answer: A polynomial function is a function that can be represented by a polynomial equation, which is an equation that involves only addition, subtraction, and multiplication of variables raised to whole number powers.

10. **What is the difference between an even function and an odd function?**

Answer: An even function is a function that is symmetric about the y-axis, meaning that $f(x) = f(-x)$ for all values of x . An odd function is a function that is symmetric about the origin, meaning that $f(x) = -f(-x)$ for all values of x .