# 17 Lecture - MTH101

# **Important Subjective**

#### What is the derivative of the sine function?

Answer: The derivative of the sine function is the cosine function.

#### What is the derivative of the cosine function?

Answer: The derivative of the cosine function is the negative of the sine function.

#### What is the derivative of the tangent function?

Answer: The derivative of the tangent function is the square of the secant function.

#### What is the derivative of the cotangent function?

Answer: The derivative of the cotangent function is the negative of the square of the cosecant function.

#### What is the derivative of the secant function?

Answer: The derivative of the secant function is the product of the secant and tangent functions.

#### What is the derivative of the cosecant function?

**Answer:** The derivative of the cosecant function is the negative of the product of the cosecant and cotangent functions.

#### How do you find the derivative of a product of two trigonometric functions?

Answer: You can use the product rule to find the derivative of a product of two trigonometric functions.

#### How do you find the derivative of a sum of two trigonometric functions?

Answer: You can use the sum rule to find the derivative of a sum of two trigonometric functions.

## How do you find the derivative of the inverse trigonometric functions?

Answer: You can use the chain rule to find the derivative of the inverse trigonometric functions.

## How do you find the derivative of a composition of a trigonometric function and another function?

**Answer:** You can use the chain rule to find the derivative of a composition of a trigonometric function and another function.