

20 Lecture - MTH101

Important Subjective

What is the derivative of $\ln(x)$?

Answer: The derivative of $\ln(x)$ is $1/x$.

What is the derivative of e^x ?

Answer: The derivative of e^x is e^x .

What is the derivative of $\ln(u)$, where u is a function of x ?

Answer: The derivative of $\ln(u)$ is $u'/(u)$.

What is the derivative of e^u , where u is a function of x ?

Answer: The derivative of e^u is $e^u * u'$.

What is the derivative of $\ln(ax)$, where a is a constant?

Answer: The derivative of $\ln(ax)$ is $1/(x \ln(a))$.

What is the derivative of $e^{(ax)}$, where a is a constant?

Answer: The derivative of $e^{(ax)}$ is $ae^{(ax)}$.

What is the derivative of $\ln(x^n)$, where n is a constant?

Answer: The derivative of $\ln(x^n)$ is n/x .

What is the derivative of $e^{(nx)}$, where n is a constant?

Answer: The derivative of $e^{(nx)}$ is $ne^{(nx)}$.

What is the derivative of $\ln(e^x)$?

Answer: The derivative of $\ln(e^x)$ is 1.

What is the derivative of $e^{\ln(x)}$?

Answer: The derivative of $e^{\ln(x)}$ is x .