

20 Lecture - MTH101

Important Mcqs

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

- a) x
- b) $1/x$
- c) $\ln(x)$
- d) 0

Solution: b) $1/x$

What is the derivative of e^x ?

- a) x
- b) e^x
- c) $\ln(x)$
- d) 0

Solution: b) e^x

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

- a) $1/u$
- b) $u/\ln(u)$
- c) $u'/\ln(u)$
- d) $\ln(u)/u'$

Solution: c) u'/u

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

- a) e^u
- b) $u'e^u$

c) $e^{(u/x)}$

d) $e^{(u^2)}$

Solution: b) $u'e^u$

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

a) $1/x\ln(a)$

b) a/x

c) $x\ln(a)$

d) 0

Solution: a) $1/x\ln(a)$

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

a) ae^x

b) $e^{(ax)}$

c) x^a

d) a^x

Solution: a) $ae^{(ax)}$

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

a) $n\ln(x)$

b) n/x

c) x/n

d) 0

Solution: b) n/x

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

a) $e^{(nx)}$

b) n^x

c) $ne^{(nx)}$

d) $e^{(n^x)}$

Solution: c) $ne^{(nx)}$

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

a) x

b) 1

c) e^x

d) $\ln(x)$

Solution: b) 1

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

a) x

b) e^x

c) $\ln(x)$

d) 1

Solution: a) x