

# Lec. 22-b-questions

Tuesday, July 30, 2024

1:34 AM

c). Check accuracy of both formulas on proofs

1.) Calculate  $U(P_n; f) - L(P_n; f)$  explicitly

2.) Show that as  $h \rightarrow \infty$  that for  $(f(x) = x^2)$

$$U(P_n; f) - L(P_n; f) \rightarrow 0$$

Show that it must be the case that

a.)  $U = L$  is by definition  $x^2$  is Riemann  
Integrable

$$\lim_{h \rightarrow \infty} = \lim_{n \rightarrow \infty} \Rightarrow L_{\text{limit}}$$

$$b.) U = \lim_{h \rightarrow \infty} U(P_n; f)$$

$$c.) L = \lim_{h \rightarrow \infty} L(P_n; f)$$