MTH 201

MULTIVARIABLE CALCULUS AND DIFFERENTIAL EQUATIONS

ASSIGNMENT-7 (30/09/2016)

Problem-A.

(1) Solve 7, 16, 20, 29, 37, 38, 39, 40, 45, 50 from Section 15.1
(2) Solve 14, 18, 26, 27 from Section 15.2
(3) Solve 9, 13, 16, 22, 33, 41 from Section 15.3
(4) Solve 12, 16, 20,26, 29, 43, 44, 47 from Section 15.4
(5) Solve 5, 10,14, 17, 19, 25, 29, 34, 45, 58 from Section 15.6
(6) Solve 1, 2, 4, 5, 7, 21, 22 from Section 15.7

Problem-B.

- Write the definition of Riemann integral and Darboux integral of a bounded function on rectangle. Show that both implies each other. Compare this with another definition defined using step function.
- Give an example a function f such that both iterated integrals exists but function is not integrable.
- Give an example of a function such that one iterated integral exist but other does not.
- Give an example of a function such that function is integrable but iterated integral does not exist.

Note: If you have any doubt in your solution then you can discuss it in tutorials.

Text Book: Thomas' Calculus 11th edition (Maurice D. Weir, Joel Hass, Frank R. Gioedano).