1. **Properties of Riemann Integral**

* 1. **Theorem**: Let is a bounded function., then closed.

**Proof:** let

 an open interval and

 is an open set

 is a closed.

* 1. **Corollary:** Let is a bounded function and discontinuous at , then .
	2. **Theorem**: Let is a bounded function and discontinuous at , then is Riemann integral is a neglected set.
	3. **Corollary:** Let are closed sets . If a function is Riemann integral, then is Riemann integral.

**Proof:** let discontinuous at , also

discontinuous at

Since a function is Riemann integral

 is a neglected set

Since

 is a neglected set

 is Riemann integral.

* 1. **Theorem**: Let . If a bounded function is Riemann integral on , then is Riemann integral on . Also .

**Proof:** since is Riemann integral on

 are a neglected sets.

 is a neglected set.

Let , since is Riemann integral on

partition of and partition of

Put partition of .

 is Riemann integral on

* 1. **Theorem**: Let are bounded functions with Riemann integral,

 is Riemann integral on and .

**Proof:** since are bounded functions with Riemann integral

 are a neglected sets.

 is a neglected set.

Since

 is a neglected set.

 is Riemann integral on .

Also, for all partition of , we get

Let , since are Riemann integral on

partition of and partition of

Put partition of and .

Also,

Since .