QUERIES

The following questions were posed by Peter Bullen during the 10th summer conference in Vancouver, B.C.

178. Without loss of generality can the guage function in the generalized Riemann integral be assumed to be measurable? If not, would insisting that the gauge function be in some class of measurable functions produce an interesting change in the integral?

179. This question is about the fact that the integrals fashioned to integrate (finite) derivatives will also integrate unilateral derivatives but not derivates. For that the more general integral of Denjoy is needed. The Riemann integral integrates derivatives, but the definition cannot be modified since covers using intervals all tagged at the left, say, do not define partitions. Can the Riemann definition handle unilateral derivatives?