Let f be a real function on [a, b]. Suppose that f is Riemann integrable

on [c, b] for every a < c < b.

(a) Show that if f is also Riemann-integrable on

[a, b], then

(b) Give an example of a function g on [a, b] for

which is defined, while g is not Riemann integrable

on [a, b].