Exercise Abbott 7.4.5:

Exercise Abbott 7.5.1:

Exercise Abbott 7.5.4:

Exercise Supplemental 1:

1. Use Theorems 7.3.2 and 7.4.1 to show that if f is continuous on $[a, b]$ except at finitely many points, then f is Riemann integrable. The proof is by induction!

2. Define g on $[0, 1]$ by

$$g(x) = \begin{cases} 1 & x = 1/n \text{ for some } n \in \mathbb{N} \\ 0 & \text{otherwise.} \end{cases}$$

Determine (with proof) if g is Riemann integrable or not.