

## Exercise 3.6

Nolan Hauck

*Last updated Wednesday 28<sup>th</sup> February, 2024 at 15:36*

Suppose  $\nu(E) = \int f d\mu$  where  $\mu$  is a positive measure and  $f$  is an extended  $\mu$ -integrable function. Describe the Hahn decompositions of  $\nu$  and the positive, negative, and total variations of  $\nu$  in terms of  $f$  and  $\mu$ .

**Solution.**