

HW 2-15-23

- ① Show that $E \subset \mathbb{R}$ is of measure 0 \iff
 \exists collection of intervals I_1, I_2, \dots of finite total length such that each $x \in E$ is contained in infinitely many I_j .
- ② Let us say that a number $c \in \mathbb{R}$ is unlucky if it can be written as a decimal without the digit 7. Prove that the unlucky numbers form a set of measure 0.