21. Find a metric in the space of mod 0 classes of Lebesgue measurable real valued functions on $[0, 1]$ such that convergence in that metric is equivalent to convergence in measure and the space is complete.

22. Construct an example of a Lebesgue measurable function $f$ on $[0, 1]$ such that for every open interval $I$ the function $f \cdot \chi_I$ is not integrable.

23. Prove that polynomials are dense in the set of measurable functions on $[0, 1]$ in the topology of convergence in measure.