Starred problems are optional (they will not be graded)

1. Billingsley, 14.1

2. Billingsley, 14.5:
Note by definition a measure of distance $d(F, G)$ between $F$ is a metric if for all $F, G, H$:

(i) $d(F, G) = d(G, F)$ (symmetry)
(ii) $d(F, G) = 0$ iff $F = G$
(iii) $d(F, H) \leq d(F, G) + d(G, H)$ (triangle inequality)

3. Billingsley, 25.1

4. Billingsley, 25.3

5. Billingsley, 25.13

6*. Billingsley, 26.1